IBM System x3650 M4 BD servers include Intel Xeon E5-2600 v2 series processors and a powerful multicore design with next-generation microarchitecture

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At a glance

The IBM® System x3650 M4 BD server offers a cost-effective high-capacity storage solution with exceptional energy-smart design, leadership virtualization, and powerful systems management. It supports up to two 12-core Intel Xeon™ processors and high-density memory designs with sixteen DDR3 DIMM slots. This 2U-high System x3650 M4 BD is built on IBM X-Architecture®, consolidates storage and server as one, offers easy management, and saves floor space and power consumption, costing less money than traditional enterprise offerings.

Power, scalability, control, and serviceability for dynamic web-serving and business applications deliverable on demand:

- Ultrathin, high-availability, rack-optimized, 2U platform.
- Powerful Intel Xeon E5-2600 v2 series multicore processor with new microarchitecture design featuring Quick Path Interconnect (QPI) technology with Intel™ Extended Memory 64 Technology (EM64T).
- Support for UDIMM, RDIMM, and LRDIMM; up to 32 GB of high-speed DDR3 SDRAM Registered DIMM memory in sixteen DIMM slots that support up to 512 GB.
- Up to 12 front and two rear standard hot-swap 3.5-inch SAS/SATA HDDs or 2.5-inch SSD via a converter tray.
- Two PCI-Express x8 high-performance PCIe* 3.0 slots, and one x8 slot dedicated for internal hardware RAID.
- 750-watt or 900-watt high-efficiency auto-ranging power supplies with 80 PLUS certifications.
- Integrated Management Module II (IMM2).
- Integrated triple-port Gigabit Ethernet standard for network communication with additional dedicated Management port.

- One 16550-compatible serial port (rear), seven USB ports (two front, four rear, and one internal for USB hypervisor), plus one VGA port at the back.

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: YE001).

Overview

Optimized for storage density and performance

Innovative energy-smart design with powerful high-performance processors, a large capacity of high-performing DDR3 memory, and a balanced feature set make the x3650 M4 BD server ideal for many general-business applications:

- Latest Xeon E5-2600 v2 series processors and a powerful multicore design to satisfy various client needs.
- Hot-swap and redundant 750 W and 900 W power supply units designed to meet 80 PLUS certification for greater energy efficiency and savings.
- Redundant cooling fans, low-voltage memory, and energy-smart design to enable lower power requirements and help lower operational costs.
- Highly functional chipset optimized for better application computing supporting general-business workloads.
- Sixteen DIMM slots that enable deployment of up to 512 GB of DDR3 memory, with up to 32 GB memory module.
- Up to 12 front and two rear standard hot-swap 3.5-inch SAS/SATA HDDs or 2.5-inch SSD via a converter tray.
- Integrated triple-port Gigabit Ethernet standard for network communication with additional dedicated Management Ethernet port.
- Support for embedded hypervisor port activated with optional USB key.
- Two PCI-Express x8 high-performance PCIe* 3.0 slots, and one x8 slot dedicated for internal hardware RAID.
- Built-in Integrated Management Module 2 (IMM2) with optional upgrade to remote presence via Features on Demand (FoD), which supports a consistent management view across your portfolio and offers server monitoring, alerting, and remote control to lessen the time and cost spent supporting your system.
- Integrated IBM System x® ToolsCenter and ServerGuide to help you easily install and maintain the server.

Manage with efficiency

High availability, manageability, and serviceability features help diagnose problems quickly, even from remote locations:

- IBM Systems Director Active Energy Manager™ (AEM) for advanced power management, including real-time monitoring, trending, and reporting of power consumption.
- Memory Channel Mode for Independent/Mirroring/Sparing (Sparing model for Rank on Channel) configurable using Unified Extensible Firmware Interface (UEFI) setup.
- IMM2 systems management processor.
- Monitoring and control of operating status and key server components.
- Intelligent Platform Management Interface (IPMI) 2.0-compliant full IMM for enterprise-class systems management to monitor, maintain, and maximize server availability, including full remote systems management.
- Optional IBM Virtual Media Key to enable the remote presence and blue-screen capture features.
- Predictive Failure Analysis (PFA) on select components that helps warn of problems before they occur.

Ultimate fault tolerant protection

- Redundant fans with calibrated vectored cooling (to keep components cool), and simplified fan replacement.
- Hot-swap, redundant power supplies to help reduce downtime.
- High-performance hot-swap SAS and SATA HDDs at front HDDs backplane, and optional hot-swap at rear HDDs backplane with separate RAID array.
- Support for advanced hardware RAID options (optional 0/1/10/5/50/6/60 with SED and optional cache or flash, battery or supercap).
- IBM Director and web support.
- Three-year, customer replaceable unit (CRU) and on-site labor[1] , limited warranty[2] ; optional warranty service upgrades available.

[1] You may be asked certain diagnostic questions before a technician is sent.

[2] For information on IBM Statement of Limited Warranty, call 800-IBM-SERV (426-7378) or contact your IBM representative or reseller. Copies are available upon request.

Key prerequisites

- Monitor
- USB keyboard
- USB mouse

Note: PS/2 style keyboard and mouse are not supported.

Planned availability date

- February 12, 2014: All models except 5344A2x, 5466C2x, 5466D2x, 5466F2x
- February 20, 2014: Models 5344A2x, 5466C2x, 5466D2x, 5466F2x

Description

System x3650 M4 BD-related options

System x3650 M4 BD servers feature an Intel Xeon multicore processor that supports internal processing speeds of up to 2.80 GHz, and processing operations to memory up to 1600 or 1866 MHz (up to configuration). They contain integrated, full-speed L3 cache.

High-performance server subsystems

These servers are high-throughput, network servers with excellent scalability when you add memory and a second processor.

Two Intel Xeon connectors are standard on the system board to support installation of a second processor. High-speed DDR3 Registered DIMM memory is optimized for 1600 MHz or 1866 MHz (up to configuration) processor-to-memory subsystem performance.

Additional features

- Powerful Intel multicore processor support
- System board containing 16 DIMM connectors, supporting 4 GB, 8 GB, and 16 GB DDR3 Registered DIMM memory and 32 GB LR DIMM with:
  - Support for up to 512 GB of system memory

  - Support for Chipkill memory
  - Support for one DIMM per Channel (1DPC) at 1866 MHz with supported 1866 MHz RDIMMs
- Internal hardware RAID card support for high-speed (up to 6.0 Gbps) dual differential pairs to communicate with hot-swap SAS/SATA HDDs
- Intel Ethernet Controller I350 3x Gigabit Ethernet on board speeding network with additional dedicated Management port

The System x3650 M4 BD subsystems are tuned to provide solid system throughput from processor, to memory, to bus, to disk-intensive I/O. These features combined with multicore capability make this server an excellent choice for:

- Big Data and Hadoop
- Database
- Linux™ clusters
- File and print
- Virtualization
- Business analysis
- Online gaming
- Video and photo sharing
- Web searching
- Blogging and messaging
- Video recording
- Mail server (Notes® and Exchange)

High-availability and serviceability features

The System x3650 M4 BD server subsystem delivers excellent reliability and serviceability features:

- Up to 12 front and two rear standard hot-swap 3.5-inch SAS/SATA HDDs
- Three redundant cooling fans
- Hot-swap, redundant power supplies
- ECC DIMMs combined with an integrated ECC memory controller correcting many soft and hard single-bit memory errors, while minimizing disruption of service to LAN clients
- ECC to improve data integrity and help reduce downtime
- PFA on memory and HDD options to help alert the system administrator of an imminent component failure
- Intel Gigabit Ethernet Controller I350 that supports:
  - Failover
  - PXE 2.0 Boot Agent
  - IPMI 2.0
  - Wake on LAN
- Worldwide, voltage-sensing 750-watt or 900-watt high-efficiency power supplies with 80 PLUS certifications
- Up to three sets of counter-rotating fans that provide excellent cooling for added reliability:
  - Each power supply comes with its own internal cooling fan.
  - Redundant fans cool processor, memory, and HDD bays.
  - Fan speed controls are incorporated to reduce noise, while reducing system temperatures.
- Integrated systems management processor for diagnostic, reset, POST, and auto recovery functions; monitoring temperature, voltage, and fan speed; alerts

generated when thresholds are exceeded (refer to the Limitations section for restrictions)
- Information LED panel giving visual indications of system well-being
- Light path diagnostics and onboard diagnostics providing an error log that can help find a failing component, helping reduce downtime and service costs
- Easy access to system board, adapter cards, processor, and memory
- CPU failure recovery in dual-socket configurations:
  - Forces failed processor offline
  - Reboots server automatically
  - Generates alerts
  - Continues operations with the working processor

Expandability and growth

The System x3650 M4 BD server contains high levels of function and storage capacity for a 2U, 19-inch rack-drawer package. It supports customer installation of adapters, processors, memory, and HDD options. Functions such as SVGA video, SAS/SATA, and Gigabit Ethernet controller are integrated on the system board. An internal hardware RAID card is needed for system hot-swap SATA/SAS HDD drives. Features include:

- Rack-optimized design for 19-inch-wide, industry-standard rack cabinets (supported in the NetBAY42 and NetBAY25)
- Sixteen DIMM connectors capable of support for up to 512 GB of system memory
- Twelve plus two hot-swap 3.5-inch SAS/SATA HDD bays

Systems management

IMM

The System x3650 M4 BD includes an IMM that provides industry-standard Intelligent Platform Management Interface (IPMI) 2.0-compliant systems management. The IMM comes standard, and shares one of the two onboard Ethernet ports for access. The IMM can be accessed via software that is compatible with IPMI 2.0 (for example, xCAT).

Features and benefits:

- Monitoring:
  - System voltages
  - Battery voltage
  - System temperatures
- Fan speed control
- Fan tachometer monitor
- Good power signal monitor
- System ID and planar version detection
- System power and reset control
- NMI detection (system interrupts)
- SMI detection and generation (system interrupts)
- Serial port text console redirection
- System LED monitoring (power, HDD, activity, alerts, and heartbeat)
- Identify LED control
- An embedded web server that enables remote control from any standard web browser; no additional software is required on the remote administrator's workstation

- The ability for administrators to use the command-line interface (CLI) from a Telnet session to perform some of the functions that can be performed from the web server
- Secure Sockets Layer (SSL) and Lightweight Directory Access Protocol (LDAP)
- Built-in LAN and serial connectivity that supports virtually any network infrastructure
- Multiple alerting functions that warn systems administrators of potential problems through email, IPMI PETs, and SNMP

In addition, you can purchase an optional IBM Virtual Media Key to enable the remote presence and blue-screen capture features. You can add this key to the server through FoD. This key enables easy console redirection with text and graphics, keyboard, and mouse support (operating system must support USB) over the system management LAN connections.

With video compression now built into the adapter hardware, the adapter allows the greater screen sizes and refresh rates that are available in the marketplace. This feature helps enable the user to display server activities from power-on to full operation remotely with remote user interaction at virtually any time.

IBM Director

The System x3650 M4 BD server also features IBM Director, a powerful, highly integrated, systems-management software solution built on industry standards and designed for ease of use. Exploit your existing enterprise or workgroup-management environments, and use rich security to access and manage physically dispersed IT assets more efficiently over the Internet. It can help reduce costs through potentially:

- Reducing downtime
- Increasing productivity of IT personnel and end users
- Reducing service and support costs

IT administrators can view the hardware configuration of remote systems in detail, and monitor the usage and performance of critical components such as processors, HDDs, and memory.

IBM Director includes a portfolio of integrated server tools that work with the systems management monitoring functions. Typical functions and monitoring capabilities can include:

- PFA-enabled critical hardware components
- Temperature
- Voltage
- Fan speed
- Light path diagnostics

IT administrators have comprehensive, virtual on-site control of System x servers with the ability to remotely:

- Access the server, often regardless of its status
- Inventory and display detailed system and component information
- View server bootup during POST
- Browse and delete logs of events and errors
- Reset or power cycle the server
- Monitor and set thresholds on server health, including:
  - Operating system load
  - POST time-out
  - Voltage

  - Temperature
- Set proactive alerts for critical server events, including PFA on:
  - Memory
  - HDDs
- Define automated actions, such as:
  - Send email or page to an administrator
  - Execute a command or program
  - Deliver an error message to the IBM Director console
- Flash BIOS
- Monitor and graph the use of server resources, such as:
  - Memory
  - Processor
  - HDDs
- Identify potential performance bottlenecks and react to prevent downtime

IBM Director Agent integrates into leading workgroup and enterprise systems management environments via upward integration modules (available from IBM and third parties). Advanced management capabilities built into System x servers are available through:

- Tivoli® Enterprise and Tivoli NetView®
- Computer Associates Unicenter TNG
- HP OpenView
- Microsoft™ SMS
- BMC Patrol
- NetIQ

World-class support tools and programs

The System x3650 M4 BD server includes a number of tools and programs designed to make ownership a positive experience. From the start, IBM programs help you purchase servers, get them running, and keep them running over the long haul. IBM can help your company maintain ownership of technology leadership network servers.

- IBM customer replaceable unit (CRU) and on-site, three-year limited warranty with next-business-day (NBD) service (same-business-day service optionally available) helps protect your investment if a problem occurs. This service also includes replacement of parts identified through Predictive Failure Analysis (PFA).
- The ServerProven® program lets you confidently configure your server with various devices and operating systems. This program provides compatibility information from actual testing of the System x3650 M4 BD server with various adapters and devices.
- The web-based ServerGuide includes online publications, in addition to utilities and drivers that enable assisted loading of popular network operating systems.
- Electronic support on the web provides additional support in an easy-to-use format.

Note: IBM makes no warranties, expressed or implied, regarding non-IBM products and services that are ServerProven, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. These products are offered and warranted solely by third parties.

Standard System x3650 M4 BD configurations

Model number	Processor	Memory	GTS	HDD interface	HDD	Other
5466A2x	1.8 GHz Cache: 10 MB	8 GB	6.4	H/S SAS/SATA	3.5-in	Open Bay
5466A4x	1.8 GHz Cache: 10 MB	8 GB	6.4	H/S SAS/SATA	3.5-in	Open Bay
5466B2x	2.5 GHz Cache: 10 MB	8 GB	6.4	H/S SAS/SATA	3.5-in	Open Bay
5466C2x	2.1 GHz Cache: 15 MB	8 GB	7.2	H/S SAS/SATA	3.5-in	Open Bay
5466C4x	2.1 GHz Cache: 15 MB	8 GB	7.2	H/S SAS/SATA	3.5-in	Open Bay
5466D2x	2.4 GHz Cache: 15 MB	8 GB	7.2	H/S SAS/SATA	3.5-in	Open Bay
5466F2x	2.2 GHz Cache: 25 MB	8 GB	8.0	H/S SAS/SATA	3.5-in	Open Bay
5466F4x	2.2 GHz Cache: 25 MB	8 GB	8.0	H/S SAS/SATA	3.5-in	Open Bay
5466G2x	2.4 GHz Cache: 30 MB	8 GB	8.0	H/S SAS/SATA	3.5-in	Open Bay

Note: The model "x" designation is geography-dependent and is spelled out explicitly in the Product number section.

Product positioning

System x3650 M4 BD is a 2U, dual-socket rack server for single or multiple general business application hosting built on innovative IBM X-Architecture leveraging Intel QPI technology. Featuring power-optimized, high-performance Intel Xeon multicore processors, and an energy-efficient design with balanced functionality, the System x3650 M4 BD can help reduce cost, improve service, and allow you to manage risk easily and simply.

The System x3650 M4 BD is suitable for mid-market and SMB rack clients looking to optimize their IT budgets, and is designed for single or multiple general business application hosting and virtualized, nonblade environments.

Optimized for speed

The new System x3650 M4 BD server models offer new levels of fast Intel Xeon multicore processors with up to 8.0 GT/s and lower power for datacenter environments and collaboration applications. This server is uniquely optimized for better application computing with a highly functional chipset and twelve DIMM slots for a maximum of 512 GB of ECC DDR3 memory.

Intel Turbo Boost Technology is one of the many exciting new features that Intel has built into the latest-generation Intel microarchitecture. It automatically allows processor cores to run faster than the base operating frequency if they are operating below power, current, and temperature specification limits.

Innovation comes standard

- Boost application efficiency with snoop filters that free up cache and improve processor performance.

- A basic light path improves in-rack manageability and allows easy problem identification.

Ultimate fault tolerant protection

- A memory mirroring/sparing/independent feature enables you to increase memory reliability

Target applications

- Database
- Email collaboration
- Online gaming
- Video and photo sharing
- Web searching
- Blogging and messaging
- Video recording
- Mail server (Notes and Exchange)
- File and print
- Virtualization
- Linux clustering
- Scientific and technical computing

Statement of general direction

IBM intends to deliver a Flex System Compute Node based on IBM Enterprise-X architecture that will be included in the IBM X6 portfolio. The new IBM Flex System™ x880 X6 Compute Node will deliver x86 resiliency features, scalability up to an eight-socket server, and unique flash capabilities for mission-critical workloads and applications such as databases, analytics, ERP, large-scale virtualization deployments, and virtualization of enterprise applications.

IBM intends to offer a pre-integrated SAP HANA offering based on the new IBM Flex System x880 X6 Compute Node. This new solution will be certified and tested specifically for SAP HANA and will help customers reduce costs associated with deploying a world-class analytics solution.

IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remain at our sole discretion.

Product number

The following are features already announced for the 5457, 5466 machine type:

Description	MT	Model	Feature
QLogic 10Gb SFP+ SR Optical Transceiver	5466	AC1 MC1	0064
UID Asset Tag Label	5466	AC1 MC1	0747
EMEA Long Leadtime Configurations	5466	AC1 MC1	1763

Hungary CHW plant 9SH	5466	AC1 MC1	1764
Guad CHW plant 9KQ	5466	AC1 MC1	1765
ISTC CHW 9K2	5466	AC1 MC1	1766
RTP CHW 9NR	5466	AC1 MC1	1767
Offload Manufacturing to Guadalajara HVEC	5466	AC1 MC1	1768
Offload Manufacturing to RTP HVEC	5466	AC1 MC1	1769
Offload Manufacturing to ISTC	5466	AC1 MC1	1770
Routing for AP Foxconn	5466	AC1 MC1	1771
Capacity Scheduling Service	5466	AC1 MC1	1772
Custom SLA Scheduling Service	5466	AC1 MC1	1796
2U Bracket for NetXtreme II 1000 Express® Quad Port Ethernet Adapter	5466	AC1 MC1	2141
Custom Asset Tagging - Standard	5466	AC1 MC1	2200
Custom Asset Tagging - Enhanced	5466	AC1 MC1	2201
Custom Image Load - Server	5466	AC1 MC1	2204
Custom Media Shipgroup	5466	AC1 MC1	2206
Request for Global Trade Number (UPC or EAN)	5466	AC1 MC1	2207
Custom Software/Firmware Setting - Standard	5466	AC1 MC1	2208
Custom Software/Firmware Setting - Enhanced	5466	AC1 MC1	2209
Custom RAID Configuration	5466	AC1 MC1	2212
Custom Unit Carton Label	5466	AC1 MC1	2220
Custom Palletization	5466	AC1 MC1	2221
Request for a new Vendor Logo Hardware	5466	AC1 MC1	2247
Request for a Classic RPQ	5466	AC1 MC1	2248
Request for an existing Public RPQ	5466	AC1 MC1	2249
RAID Configuration	5466	AC1 MC1	2302
Rack Installation >1U Component	5466	AC1 MC1	2306
Primary Array 12 HDDs	5466	AC1 MC1	2400
Primary Array 13 HDDs	5466	AC1 MC1	2401
Primary Array 14 HDDs	5466	AC1 MC1	2402
Secondary Array 9 HDDs	5466	AC1 MC1	2405
Secondary Array 10 HDDs	5466	AC1 MC1	2406
Secondary Array 11 HDDs	5466	AC1 MC1	2407
Secondary Array 12 HDDs	5466	AC1 MC1	2408
2U Bracket for Brocade 10Gb CNA for IBM System x	5466	AC1 MC1	2492
Install largest capacity, faster drives starting in Array 1	5466	AC1 MC1	2498
Install smallest capacity, slower drives starting in Array 1	5466	AC1	2499

		MC1	
NetXtreme II 1000 Express Dual Port Ethernet Adapter	5466	AC1 MC1	2995
Rack 01	5466	AC1 MC1	3101
Rack 02	5466	AC1 MC1	3102
Rack 03	5466	AC1 MC1	3103
Rack 04	5466	AC1 MC1	3104
Rack 05	5466	AC1 MC1	3105
Rack 06	5466	AC1 MC1	3106
Rack 07	5466	AC1 MC1	3107
Rack 08	5466	AC1 MC1	3108
Rack 09	5466	AC1 MC1	3109
Rack 10	5466	AC1 MC1	3110
Rack 11	5466	AC1 MC1	3111
Rack 12	5466	AC1 MC1	3112
Rack 13	5466	AC1 MC1	3113
Rack 14	5466	AC1 MC1	3114
Rack 15	5466	AC1 MC1	3115
Rack 16	5466	AC1 MC1	3116
Rack 17	5466	AC1 MC1	3117
Rack 18	5466	AC1 MC1	3118
Rack 19	5466	AC1 MC1	3119
Rack 20	5466	AC1 MC1	3120
Rack 21	5466	AC1 MC1	3121
Rack 22	5466	AC1 MC1	3122
Rack 23	5466	AC1 MC1	3123
Rack 24	5466	AC1 MC1	3124
Rack 25	5466	AC1 MC1	3125
Rack 26	5466	AC1 MC1	3126
Rack 27	5466	AC1 MC1	3127
Rack 28	5466	AC1 MC1	3128
Rack 29	5466	AC1 MC1	3129
Rack 30	5466	AC1 MC1	3130
Rack 31	5466	AC1 MC1	3131
Rack 32	5466	AC1 MC1	3132
Rack 33	5466	AC1 MC1	3133
Rack 34	5466	AC1 MC1	3134
Rack 35	5466	AC1 MC1	3135

Rack 36	5466	AC1 MC1	3136
Rack 37	5466	AC1 MC1	3137
Rack 38	5466	AC1 MC1	3138
Rack 39	5466	AC1 MC1	3139
Rack 40	5466	AC1 MC1	3140
Rack 41	5466	AC1 MC1	3141
Rack 42	5466	AC1 MC1	3142
Rack 43	5466	AC1 MC1	3143
Rack 44	5466	AC1 MC1	3144
Rack 45	5466	AC1 MC1	3145
Rack 46	5466	AC1 MC1	3146
Rack 47	5466	AC1 MC1	3147
Rack 48	5466	AC1 MC1	3148
Rack 49	5466	AC1 MC1	3149
Rack 50	5466	AC1 MC1	3150
Rack 51	5466	AC1 MC1	3151
Rack 52	5466	AC1 MC1	3152
Rack 53	5466	AC1 MC1	3153
Rack 54	5466	AC1 MC1	3154
Rack 55	5466	AC1 MC1	3155
Rack 56	5466	AC1 MC1	3156
Rack 57	5466	AC1 MC1	3157
Rack 58	5466	AC1 MC1	3158
Rack 59	5466	AC1 MC1	3159
Rack 60	5466	AC1 MC1	3160
Rack 61	5466	AC1 MC1	3161
Rack 62	5466	AC1 MC1	3162
Rack 63	5466	AC1 MC1	3163
Rack 64	5466	AC1 MC1	3164
Rack location U01	5466	AC1 MC1	3201
Rack location U02	5466	AC1 MC1	3202
Rack location U03	5466	AC1 MC1	3203
Rack location U04	5466	AC1 MC1	3204
Rack location U05	5466	AC1 MC1	3205
Rack location U06	5466	AC1 MC1	3206
Rack location U07	5466	AC1 MC1	3207
Rack location U08	5466	AC1 MC1	3208

Rack location U09	5466	AC1 MC1	3209
Rack location U10	5466	AC1 MC1	3210
Rack location U11	5466	AC1 MC1	3211
Rack location U12	5466	AC1 MC1	3212
Rack location U13	5466	AC1 MC1	3213
Rack location U14	5466	AC1 MC1	3214
Rack location U15	5466	AC1 MC1	3215
Rack location U16	5466	AC1 MC1	3216
Rack location U17	5466	AC1 MC1	3217
Rack location U18	5466	AC1 MC1	3218
Rack location U19	5466	AC1 MC1	3219
Rack location U20	5466	AC1 MC1	3220
Rack location U21	5466	AC1 MC1	3221
Rack location U22	5466	AC1 MC1	3222
Rack location U23	5466	AC1 MC1	3223
Rack location U24	5466	AC1 MC1	3224
Rack location U25	5466	AC1 MC1	3225
Rack location U26	5466	AC1 MC1	3226
Rack location U27	5466	AC1 MC1	3227
Rack location U28	5466	AC1 MC1	3228
Rack location U29	5466	AC1 MC1	3229
Rack location U30	5466	AC1 MC1	3230
Rack location U31	5466	AC1 MC1	3231
Rack location U32	5466	AC1 MC1	3232
Rack location U33	5466	AC1 MC1	3233
Rack location U34	5466	AC1 MC1	3234
Rack location U35	5466	AC1 MC1	3235
Rack location U36	5466	AC1 MC1	3236
Rack location U37	5466	AC1 MC1	3237
Rack location U38	5466	AC1 MC1	3238
Rack location U39	5466	AC1 MC1	3239
Rack location U40	5466	AC1 MC1	3240
Rack location U41	5466	AC1 MC1	3241
Rack location U42	5466	AC1 MC1	3242
Rack location U43	5466	AC1 MC1	3243
Rack location U44	5466	AC1 MC1	3244
Rack location U45	5466	AC1 MC1	3245

Rack location U46	5466	AC1 MC1	3246
Rack location U47	5466	AC1 MC1	3247
Emulex 8Gb FC Dual-port HBA for IBM System x	5466	AC1 MC1	3581
Brocade 8Gb FC Single-port HBA for IBM System x	5466	AC1 MC1	3589
Brocade 8Gb FC Dual-port HBA for IBM System x	5466	AC1 MC1	3591
IBM 3M SAS Cable	5466	AC1 MC1	3707
IBM 1M SAS Cable	5466	AC1 MC1	3708
IBM USB Conversion Option Pack	5466	AC1 MC1	3756
IBM Single Cable USB Conversion Option (UCO)	5466	AC1 MC1	3757
2U bracket for Emulex 8Gb FC Dual-port HBA for System x	5466	AC1 MC1	4048
2U Bracket for NetXtreme II 1000 Express Dual Port Ethernet Adapter	5466	AC1 MC1	4055
IBM Serial Conversion Option (SCO)	5466	AC1 MC1	5340
IBM Virtual Media Conversion Option Gen2 (VCO2)	5466	AC1 MC1	5341
QLogic 10Gb CNA for IBM System x	5466	AC1 MC1	5751
NetXtreme II 1000 Express Quad Port Ethernet Adapter	5466	AC1 MC1	5766
Intel Ethernet Dual Port Server Adapter I340-T2 for IBM System x	5466	AC1 MC1	5767
Intel Ethernet Quad Port Server Adapter I340-T4 for IBM System x	5466	AC1 MC1	5768
2U Bracket for QLogic 10Gb CNA for IBM System x	5466	AC1 MC1	5787
Select Storage devices - no IBM-configured RAID required	5466	AC1 MC1	5977
Select Storage devices - IBM-configured RAID	5466	AC1 MC1	5978
1.5m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	5466	AC1 MC1	6201
2.8m, 10A/100-250V, C13 to IEC 320-C20 Rack Power Cable	5466	AC1 MC1	6204
Line cord - 4.3M, 10A/125V, C13 to NEMA 5-15P (US)	5466	AC1 MC1	6207
4.3m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	5466	AC1 MC1	6263
2.8m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	5466	AC1 MC1	6311
2.8m, 10A/120V, C13 to NEMA 5-15P (US) Line Cord	5466	AC1 MC1	6313
Rack power cable - 2.0m, 125-250V, C13 to IEC 320-C14 (WW)	5466	AC1 MC1	6316
Line cord - 1.8m, 10A/250V, C13 to NEMA 6-15P (US)	5466	AC1 MC1	6351
Line cord - 1.8M, 10A/125V, C13 to NEMA 5-15P (US)	5466	AC1 MC1	6369
Line cord - 2.8m, 10A/250V, C13 to NEMA 6-15P (US)	5466	AC1 MC1	6372
Primary Array 2 HDDs	5466	AC1 MC1	7008
Primary Array 3 HDDs	5466	AC1	7009

		MC1	
Primary Array 4 HDDs	5466	AC1	7010
		MC1	
Primary Array 5 HDDs	5466	AC1	7011
		MC1	
Primary Array 6 HDDs	5466	AC1	7012
		MC1	
Primary Array 7 HDDs	5466	AC1	7013
		MC1	
Primary Array 8 HDDs	5466	AC1	7014
		MC1	
Secondary Array 2 HDDs	5466	AC1	7015
		MC1	
Secondary Array 3 HDDs	5466	AC1	7016
		MC1	
Secondary Array 4 HDDs	5466	AC1	7017
		MC1	
Secondary Array 5 HDDs	5466	AC1	7057
		MC1	
Secondary Array 6 HDDs	5466	AC1	7058
		MC1	
Secondary Array 7 HDDs	5466	AC1	7059
		MC1	
Secondary Array 8 HDDs	5466	AC1	7060
		MC1	
China Warranty	5466	AC1	7599
		MC1	
Primary Array 9 HDDs	5466	AC1	7664
		MC1	
Grouped Product	5466	AC1	7830
		MC1	
Customer Solution Center Services	5466	AC1	7831
		MC1	
e1350 Special Bid Solution Component	5466	AC1	7929
		MC1	
No HDD Selected	5466	AC1	8026
		MC1	
Consolidate Shipment	5466	AC1	8031
		MC1	
e1350 Solution Component	5466	AC1	8034
		MC1	
Compute Node	5466	AC1	8036
		MC1	
Management Node	5466	AC1	8037
		MC1	
Storage Node	5466	AC1	8038
		MC1	
TAA Compliant Order	5466	AC1	8067
		MC1	
General Racking Solution	5466	AC1	8072
		MC1	
No SATA HDD Selected	5466	AC1	8080
		MC1	
No 2.5" SAS HDD Selected	5466	AC1	8081
		MC1	
No 3.5" SAS HDD Selected	5466	AC1	8082
		MC1	
No Publications Selected	5466	AC1	8086
		MC1	
Integrate in manufacturing	5466	AC1	8971
		MC1	
Ship Uninstalled (Safety)	5466	AC1	8972
		MC1	
Hot Spare	5466	AC1	9013
		MC1	
Enable Memory Mirroring	5466	AC1	9017
		MC1	
Storage Subsystem ID 01	5466	AC1	9170
		MC1	
Storage Subsystem ID 02	5466	AC1	9171
		MC1	
Storage Subsystem ID 03	5466	AC1	9172
		MC1	
Storage Subsystem ID 04	5466	AC1	9173

		MC1	
Storage Subsystem ID 05	5466	AC1	9174
		MC1	
Storage Subsystem ID 06	5466	AC1	9175
		MC1	
Storage Subsystem ID 07	5466	AC1	9176
		MC1	
Storage Subsystem ID 08	5466	AC1	9177
		MC1	
Storage Subsystem ID 09	5466	AC1	9178
		MC1	
Storage Subsystem ID 10	5466	AC1	9179
		MC1	
Storage Subsystem ID 11	5466	AC1	9180
		MC1	
Storage Subsystem ID 12	5466	AC1	9181
		MC1	
Storage Subsystem ID 13	5466	AC1	9182
		MC1	
Storage Subsystem ID 14	5466	AC1	9183
		MC1	
Storage Subsystem ID 15	5466	AC1	9184
		MC1	
Storage Subsystem ID 16	5466	AC1	9185
		MC1	
Storage Subsystem ID 17	5466	AC1	9186
		MC1	
Storage Subsystem ID 18	5466	AC1	9187
		MC1	
Storage Subsystem ID 19	5466	AC1	9188
		MC1	
Storage Subsystem ID 20	5466	AC1	9189
		MC1	
Preload Specify	5466	AC1	9200
		MC1	
Red Hat Specify	5466	AC1	9202
SuSE Specify	5466	AC1	9203
Drop-in-the-Box Specify	5466	AC1	9205
		MC1	
No Preload Specify	5466	AC1	9206
		MC1	
Preload by Hardware Feature Specify	5466	AC1	9220
		MC1	
Primary Array 10 HDDs	5466	AC1	9714
		MC1	
Primary Array 11 HDDs	5466	AC1	9715
		MC1	
Software Application (Not Preinstalled) Specify	5466	AC1	A0UF
		MC1	
Advanced Grouping	5466	AC1	A102
		MC1	
System x Cluster Upgrade	5466	AC1	A103
		MC1	
Broadcom NetXtreme II Dual Port 10GBaseT Adapter for IBM System x	5466	AC1	A18Y
		MC1	
2U Bracket for Broadcom NetXtreme II Dual Port 10GBaseT Adapter	5466	AC1	A190
		MC1	
ServeRAID M5100 Series 512MB Cache/RAID 5 Upgrade for IBM System x	5466	AC1	A1J3
		MC1	
ServeRAID M5100 Series 512MB Flash/RAID 5 Upgrade for IBM System x	5466	AC1	A1J4
		MC1	
IBM Integrated Management Module Advanced Upgrade	5466	AC1	A1ML
		MC1	
ServeRAID M1115 SAS/SATA Controller for IBM System x	5466	AC1	A1MZ
		MC1	
ServeRAID M5120 SAS/SATA Controller for IBM System x	5466	AC1	A1WX
		MC1	
ServeRAID M5100 Series 1GB Flash/RAID 5 Upgrade			

for IBM System x	5466	AC1 MC1	A1WY
ServeRAID M1100 Series Zero Cache/RAID 5 Upgrade for IBM System x	5466	AC1 MC1	A1X1
ServeRAID M5100 Series Zero Cache/RAID 5 Upgrade for IBM System x	5466	AC1 MC1	A1X2
ServeRAID M5100 Series RAID 6 Upgrade for IBM System x	5466	AC1 MC1	A1X3
ServeRAID H1110 SAS/SATA Controller for IBM System x	5466	AC1 MC1	A1XL
2U bracket for low profile-internal-storage adapters	5466	AC1 MC1	A1XM
Rail Kit for x3630 M4 and x3530 M4	5466	AC1 MC1	A207
x3630 M4 Package	5466	AC1 MC1	A20P
ServeRAID M5100 Series 875mm Flash Power Module Cable	5466	AC1 MC1	A22C
ServeRAID M5100 Series Battery Kit for IBM System x	5466	AC1 MC1	A22E
950MM Cable for ServRAID M5100 Series Battery Kit	5466	AC1 MC1	A22G
2U bracket for low profile-external-storage adapters	5466	AC1 MC1	A22L
IBM 1TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD	5466	AC1 MC1	A22P
IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD	5466	AC1 MC1	A22S
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD	5466	AC1 MC1	A22T
IBM 500GB 7.2K 6Gbps NL SATA 3.5" G2HS HDD	5466	AC1 MC1	A22Y
IBM 1TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD	5466	AC1 MC1	A26M
Label KC	5466	AC1 MC1	A2CM
Intel x520 Dual Port 10GbE SFP+ Adapter for IBM System x	5466	AC1 MC1	A2EC
Intel X540-T2 Dual Port 10GBaseT Adapter for IBM System x	5466	AC1 MC1	A2ED
Configuration ID 01	5466	AC1 MC1	A2HP
Configuration ID 02	5466	AC1 MC1	A2HQ
Configuration ID 03	5466	AC1 MC1	A2HR
Configuration ID 04	5466	AC1 MC1	A2HS
Configuration ID 05	5466	AC1 MC1	A2HT
Configuration ID 06	5466	AC1 MC1	A2HU
Configuration ID 07	5466	AC1 MC1	A2HV
Configuration ID 08	5466	AC1 MC1	A2HW
Configuration ID 09	5466	AC1 MC1	A2HX
Configuration ID 10	5466	AC1 MC1	A2HY
Configuration ID 11	5466	AC1 MC1	A2HZ
Configuration ID 12	5466	AC1 MC1	A2J0

Configuration ID 13	5466	AC1 MC1	A2J1
Configuration ID 14	5466	AC1 MC1	A2J2
Configuration ID 15	5466	AC1 MC1	A2J3
Configuration ID 16	5466	AC1 MC1	A2J4
Configuration ID 17	5466	AC1 MC1	A2J5
Configuration ID 18	5466	AC1 MC1	A2J6
Configuration ID 19	5466	AC1 MC1	A2J7
Configuration ID 20	5466	AC1 MC1	A2J8
Configuration ID 21	5466	AC1 MC1	A2J9
Configuration ID 22	5466	AC1 MC1	A2JA
Configuration ID 23	5466	AC1 MC1	A2JB
Configuration ID 24	5466	AC1 MC1	A2JC
Configuration ID 25	5466	AC1 MC1	A2JD
Configuration ID 26	5466	AC1 MC1	A2JE
Configuration ID 27	5466	AC1 MC1	A2JF
Configuration ID 28	5466	AC1 MC1	A2JG
Configuration ID 29	5466	AC1 MC1	A2JH
Configuration ID 30	5466	AC1 MC1	A2JJ
Configuration ID 31	5466	AC1 MC1	A2JK
Configuration ID 32	5466	AC1 MC1	A2JL
Configuration ID 33	5466	AC1 MC1	A2JM
Configuration ID 34	5466	AC1 MC1	A2JN
Configuration ID 35	5466	AC1 MC1	A2JP
Configuration ID 36	5466	AC1 MC1	A2JQ
Configuration ID 37	5466	AC1 MC1	A2JR
Configuration ID 38	5466	AC1 MC1	A2JS
Configuration ID 39	5466	AC1 MC1	A2JT
Configuration ID 40	5466	AC1 MC1	A2JU
Configuration ID 41	5466	AC1 MC1	A2JV
Configuration ID 42	5466	AC1 MC1	A2JW
Controller 01	5466	AC1 MC1	A2JX
Controller 02	5466	AC1 MC1	A2JY
Controller 03	5466	AC1 MC1	A2JZ
Controller 04	5466	AC1 MC1	A2K0
Controller 05	5466	AC1 MC1	A2K1
Primary Array - RAID 0	5466	AC1 MC1	A2K6
Primary Array - RAID 1	5466	AC1 MC1	A2K7

Primary Array - RAID 1E	5466	AC1 MC1	A2K8
Primary Array - RAID 5	5466	AC1 MC1	A2K9
Primary Array - RAID 6	5466	AC1 MC1	A2KA
Primary Array - RAID 10	5466	AC1 MC1	A2KB
Secondary Array - RAID 0	5466	AC1 MC1	A2KF
Secondary Array - RAID 1	5466	AC1 MC1	A2KG
Secondary Array - RAID 5	5466	AC1 MC1	A2KJ
Secondary Array - RAID 6	5466	AC1 MC1	A2KK
Secondary Array - RAID 10	5466	AC1 MC1	A2KL
x3630 M4 Shipping Bracket	5466	AC1 MC1	A2M3
ServeRAID M5100 Series SSD Performance Key for IBM System x	5466	AC1 MC1	A2MC
ServeRAID M5100 Series SSD Caching Enabler for IBM System x	5466	AC1 MC1	A2MD
IBM 3TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD	5466	AC1 MC1	A2R2
IBM 2TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD	5466	AC1 MC1	A2U0
Broadcom NetXtreme I Quad Port GbE Adapter for IBM System x	5466	AC1 MC1	A2V3
Broadcom NetXtreme I Dual Port GbE Adapter for IBM System x	5466	AC1 MC1	A2V4
Broadcom NetXtreme I Quad Port GbE Adapter - 2U Bracket	5466	AC1 MC1	A2VX
Broadcom NetXtreme I Dual Port GbE Adapter - 2U Bracket	5466	AC1 MC1	A2VY
2U bracket for Emulex 16Gb FC Single-port HBA for System x	5466	AC1 MC1	A2W1
2U bracket for Emulex 16Gb FC Dual-port HBA for System x	5466	AC1 MC1	A2W2
Emulex 16Gb FC Single-port HBA for IBM System x	5466	AC1 MC1	A2W5
Emulex 16Gb FC Dual-port HBA for IBM System x	5466	AC1 MC1	A2W6
No Power Cord Validation	5466	AC1 MC1	A2X0
2U Bracket for Brocade 16Gb FC Single-port HBA for IBM System x	5466	AC1 MC1	A2XS
2U Bracket for Brocade 16Gb FC Dual-port HBA for IBM System x	5466	AC1 MC1	A2XT
Brocade 16Gb FC Single-port HBA for IBM System x	5466	AC1 MC1	A2XU
Brocade 16Gb FC Dual-port HBA for IBM System x	5466	AC1 MC1	A2XV
ServeRAID M5110 SAS/SATA Controller for IBM System x	5466	AC1 MC1	A347
IBM 300GB 15K 6Gbps SAS 3.5" G2HS HDD	5466	AC1 MC1	A3DV
IBM 450GB 15K 6Gbps SAS 3.5" G2HS HDD	5466	AC1 MC1	A3DW
IBM 600GB 15K 6Gbps SAS 3.5" G2HS HDD	5466	AC1 MC1	A3DX
IBM 1.2TB High IOPS MLC Mono Adapter	5466	AC1	A3DY

		MC1	
IBM 64GB SATA 3.5" MLC HS Enterprise Value SSD	5466	AC1	A3G1
		MC1	
IBM 512GB SATA 3.5" MLC HS Enterprise Value SSD	5466	AC1	A3G2
		MC1	
IBM 128GB SATA 3.5" MLC HS Enterprise Value SSD	5466	AC1	A3G3
		MC1	
IBM 256GB SATA 3.5" MLC HS Enterprise Value SSD	5466	AC1	A3G4
		MC1	
IBM 365GB High IOPS MLC Mono Adapter	5466	AC1	A3J3
		MC1	
IBM 785GB High IOPS MLC Mono Adapter	5466	AC1	A3J4
		MC1	
QLogic 16Gb FC Single-port HBA for IBM System x	5466	AC1	A3KW
		MC1	
QLogic 16Gb FC Dual-port HBA for IBM System x	5466	AC1	A3KX
		MC1	
2U Bracket for QLogic 16Gb FC Single-port HBA	5466	AC1	A3KY
		MC1	
2U Bracket for QLogic 16Gb FC Dual-port HBA	5466	AC1	A3KZ
		MC1	
Qlogic 8200 Dual Port 10GbE SFP+ VFA for IBM System x	5466	AC1	A3MR
		MC1	
2U Bracket for Qlogic 8200 Dual Port 10GbE SFP+ VFA	5466	AC1	A3MS
		MC1	
Qlogic 8200 VFA FCoE/iSCSI License for IBM System x (FoD)	5466	AC1	A3MT
		MC1	
N2125 SAS/SATA HBA for IBM System x	5466	AC1	A3MV
		MC1	
N2115 SAS/SATA HBA for IBM System x	5466	AC1	A3MW
		MC1	
Mellanox ConnectX-3 10 GbE Adapter for IBM System x	5466	AC1	A3PM
		MC1	
Mellanox ConnectX-3 FDR VPI IB/E Adapter for IBM System x	5466	AC1	A3PN
		MC1	
8GB (1x8GB, 2Rx8, 1.35V) PC3L-12800 CL11 ECC DDR3 1600MHz LP UDIMM	5466	AC1	A3QC
		MC1	
4GB (1x4GB, 1Rx4, 1.5V) PC3-14900 CL13 ECC DDR3 1866MHz LP RDIMM	5466	AC1	A3QD
		MC1	
4GB (1x4GB, 1Rx4, 1.35V) PC3L-12800 CL11 ECC DDR3 1600MHz LP RDIMM	5466	AC1	A3QE
		MC1	
8GB (1x8GB, 1Rx4, 1.5V) PC3-14900 CL13 ECC DDR3 1866MHz LP RDIMM	5466	AC1	A3QG
		MC1	
8GB (1x8GB, 1Rx4, 1.35V) PC3L-12800 CL11 ECC DDR3 1600MHz LP RDIMM	5466	AC1	A3QH
		MC1	
8GB (1x8GB, 2Rx8, 1.35V) PC3L-12800 CL11 ECC DDR3 1600MHz LP RDIMM	5466	AC1	A3QK
		MC1	
16GB (1x16GB, 2Rx4, 1.5V) PC3-14900 CL13 ECC DDR3 1866MHz LP RDIMM	5466	AC1	A3QL
		MC1	
16GB (1x16GB, 2Rx4, 1.35V) PC3L-12800 CL11 ECC DDR3 1600MHz LP RDIMM	5466	AC1	A3QM
		MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD	5466	AC1	A3W9
		MC1	
3U Bracket for Mellanox ConnectX-3 FDR VPI IB/E Adapter	5466	AC1	A3WF
		MC1	
3U Bracket for Mellanox ConnectX-3 10 GbE Adapter	5466	AC1	A3WG
		MC1	
NVIDIA Quadro K600	5466	AC1	A3WH
		MC1	
N2215 SAS/SATA HBA for IBM System x	5466	AC1	A3YY

		MC1	
ServeRAID M5210 SAS/SATA Controller for IBM System x	5466	AC1 MC1	A3YZ
ServeRAID M5200 Series 1GB Cache/RAID 5 Upgrade for IBM Systems	5466	AC1 MC1	A3Z0
ServeRAID M5200 Series 1GB Flash/RAID 5 Upgrade for IBM Systems	5466	AC1 MC1	A3Z1
ServeRAID M5200 Series 2GB Flash/RAID 5 Upgrade for IBM Systems	5466	AC1 MC1	A3Z2
ServeRAID M5200 Series RAID 6 Upgrade for IBM Systems-FoD	5466	AC1 MC1	A3Z5
ServeRAID M5200 Series Zero Cache/RAID 5 Upgrade for IBM Systems-FoD	5466	AC1 MC1	A3Z6
ServeRAID M5200 Series Performance Accelerator for IBM Systems-FoD	5466	AC1 MC1	A3Z7
ServeRAID M5200 Series SSD Caching Enabler for IBM Systems-FoD	5466	AC1 MC1	A3Z8
Capacity Scheduling Service - Indirect	5466	AC1 MC1	A46A
Custom SLA Scheduling Service - Indirect	5466	AC1 MC1	A46B
Super Cap Cable 925mm for ServRAID M5200 Series Flash	5466	AC1 MC1	A47F
Solarflare SFN5162F MR Dual Port 10GbE SFP+ Adapter for IBM System x	5466	AC1 MC1	A47H
Solarflare SFN6122F LL Dual Port 10GbE SFP+ Adapter for IBM System x	5466	AC1 MC1	A47J
32GB (1x32GB, 4Rx4, 1.5V) PC3-14900 CL13 ECC DDR3 1866MHz LP LRDIMM	5466	AC1 MC1	A47K
Populate and Boot From Rear Drives	5466	AC1 MC1	A483
2U Bracket for Solarflare Dual Port 10GbE SFP+ Adapter	5466	AC1 MC1	A48R
IBM 4TB 7.2K 6Gbps NL SAS 3.5'' G2HS HDD	5466	AC1 MC1	A4AF
2U bracket for low profile-internal-storage adapter	5466	AC1 MC1	A4C1
Broadcom Single Port 10GbE SFP+ Embedded Adapter for IBM System x	5466	AC1 MC1	A4C3
Intel X520 Dual Port 10GbE SFP+ Embedded Adapter for IBM System x	5466	AC1 MC1	A3JS
x3650 M4 BD Chassis ASM w/o Planar	5466	AC1 MC1	A4RG
BIOS GBM	5466	AC1 MC1	A4RH
1U RISER CAGE - SLOT 2	5466	AC1 MC1	A4RJ
1U BUTTERFLY RISER CAGE - SLOT 1	5466	AC1 MC1	A4RK
IBM 3.5" Hot Swap Filler	5466	AC1 MC1	A4RL
CFF PSU FILLER	5466	AC1 MC1	A4RM
Agency Label	5466	AC1 MC1	A4RN
Label GBM	5466	AC1 MC1	A4RP
x3650 M4 BD Planar	5466	AC1	A4RQ

		MC1	
3.5" Hot Swap BP Bracket Assembly, 12 x 3.5"	5466	AC1 MC1	A4RR
3.5" Hot Swap Cage Assembly, Rear, 2 x 3.5"(Cage Only)	5466	AC1 MC1	A4RS
Rear Backplane, 2x 3.5" HDD Extension To Front Array (14HDD Array)	5466	AC1 MC1	A4RT
Rear Backplane, 2x 3.5" HDD Separate Array	5466	AC1 MC1	A4RU
IBM System x 750W High Efficiency Platinum AC Power Supply	5466	AC1 MC1	A4RV
IBM System x 900W High Efficiency Platinum AC Power Supply	5466	AC1 MC1	A4RW
Intel Xeon Processor E5-2603 v2 4C 1.8GHz 10MB Cache 1333MHz 80W	5466	AC1 MC1	A4RX
Intel Xeon Processor E5-2609 v2 4C 2.5GHz 10MB Cache 1333MHz 80W	5466	AC1 MC1	A4RY
Intel Xeon Processor E5-2620 v2 6C 2.1GHz 15MB Cache 1600MHz 80W	5466	AC1 MC1	A4RZ
Intel Xeon Processor E5-2630 v2 6C 2.6GHz 15MB Cache 1600MHz 80W	5466	AC1 MC1	A4S0
Intel Xeon Processor E5-2630L v2 6C 2.4GHz 15MB Cache 1600MHz 60W	5466	AC1 MC1	A4S1
Intel Xeon Processor E5-2640 v2 8C 2.0GHz 20MB Cache1600MHz 95W	5466	AC1 MC1	A4S2
Intel Xeon Processor E5-2660 v2 10C 2.2GHz 25MB Cache 1866MHz 95W	5466	AC1 MC1	A4S3
Intel Xeon Processor E5-2650 v2 8C 2.6GHz 20MB Cache 1866MHz 95W	5466	AC1 MC1	A4S4
Intel Xeon Processor E5-2650L v2 10C 1.7GHz 25MB Cache 1600MHz 70W	5466	AC1 MC1	A4S5
Addl Intel Xeon Processor E5-2603 v2 4C 1.8GHz 10MB Cache 80W	5466	AC1 MC1	A4S6
Addl Intel Xeon Processor E5-2609 v2 4C 2.5GHz 10MB Cache 80W	5466	AC1 MC1	A4S7
Addl Intel Xeon Processor E5-2620 v2 6C 2.1GHz 15MB Cache 80W	5466	AC1 MC1	A4S8
Addl Intel Xeon Processor E5-2630 v2 6C 2.6GHz 15MB Cache 80W	5466	AC1 MC1	A4S9
Addl Intel Xeon Processor E5-2650 v2 8C 2.6GHz 20MB Cache 95W	5466	AC1 MC1	A4SA
Addl Intel Xeon Processor E5-2660 v2 10C 2.2GHz 25MB Cache 95W	5466	AC1 MC1	A4SB
Addl Intel Xeon Processor E5-2640 v2 8C 2.0GHz 20MB Cache 95W	5466	AC1 MC1	A4SC
Addl Intel Xeon Processor E5-2650L v2 10C 1.7GHz 25MB Cache70W	5466	AC1 MC1	A4SD
Addl Intel Xeon Processor E5-2630L v2 6C 2.4GHz 15MB Cache 60W	5466	AC1 MC1	A4SE
1U Riser Card, Two PCIe x8 slots	5466	AC1 MC1	A4T6
1U Riser Card, One PCIe x8 slot (For Slotless			

RAID only)	5466	AC1 MC1	A4T7
1U Riser Card, One PCIe x16 slot	5466	AC1 MC1	A4T8
Intel Xeon Processor E5-2695 v2 12C 2.4GHz 30MB Cache 1866MHz 115W	5466	AC1 MC1	A4T9
Intel Xeon Processor E5-2670 v2 10C 2.5GHz 25MB Cache 1866MHz 115W	5466	AC1 MC1	A4TA
Intel Xeon Processor E5-2680 v2 10C 2.8GHz 25MB Cache 1866MHz 115W	5466	AC1 MC1	A4TB
Addl Intel Xeon Processor E5-2695 v2 12C 2.4GHz 30MB Cache 115W	5466	AC1 MC1	A4TF
Addl Intel Xeon Processor E5-2670 v2 10C 2.5GHz 25MB Cache 115W	5466	AC1 MC1	A4TG
Addl Intel Xeon Processor E5-2680 v2 10C 2.8GHz 25MB Cache 115W	5466	AC1 MC1	A4TH
Cable, IPASS, 760mm for 6Gb cards	5466	AC1 MC1	A4TJ
Cable, IPASS, semi-HD, 820mm for 12Gb cards	5466	AC1 MC1	A4TK
System Documentation and Software-US English	5466	AC1 MC1	A4WC
UM KVM Module VGA+SD Dual RJ45	5466	AC1 MC1	
Broadcom Single Port 10GbE SFP+ Embedded Adapter with Interposer	5466	AC1 MC1	A4X6
Intel X520 Dual Port 10GbE SFP+ Embedded Adapter with Interposer	5466	AC1 MC1	A4X7
Broadcom Dual Port 10GbE SFP+ Embedded Adapter with Interposer	5466	AC1 MC1	A4XG
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	5466	AC1 MC1	A4YQ
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	5466	AC1 MC1	A4Z6
ServeRAID F5115-200GB SAS/SATA Controller for IBM System x	5466	AC1 MC1	A4Z7
ServeRAID F5115-800GB SAS/SATA Controller for IBM System x	5466	AC1 MC1	A4Z8
2x2 HDD BRACKET	5466	AC1 MC1	A50F
Essential Package	5466	AC1 MC1	A524
Enhanced Package	5466	AC1 MC1	A525
Elite Package	5466	AC1 MC1	A526
Essential Package	5466	AC1 MC1	A527
Enhanced Package	5466	AC1 MC1	A528
Elite Package	5466	AC1 MC1	A529

The following are features already announced for the 3331 machine type:

Description	MT	Model	Feature
Rear Backplane, 2x3.5" HDD Extension To Front Array (14HDD Array)	3331	HC1	A4RT
Rear Backplane, 2x3.5" HDD Separate Array	3331	HC1	A4RU

IBM System x 750W High Efficiency Platinum AC Power Supply	3331	HC1	A4RV
IBM System x 900W High Efficiency Platinum AC Power Supply	3331	HC1	A4RW
Addl Intel Xeon Processor E5-2603 v2 4C 1.8GHz 10MB Cache 80W	3331	HC1	A4S6
Addl Intel Xeon Processor E5-2609 v2 4C 2.5GHz 10MB Cache 80W	3331	HC1	A4S7
Addl Intel Xeon Processor E5-2620 v2 6C 2.1GHz 15MB Cache 80W	3331	HC1	A4S8
Addl Intel Xeon Processor E5-2630 v2 6C 2.6GHz 15MB Cache 80W	3331	HC1	A4S9
Addl Intel Xeon Processor E5-2650 v2 8C 2.6GHz 20MB Cache 95W	3331	HC1	A4SA
Addl Intel Xeon Processor E5-2660 v2 10C 2.2GHz 25MB Cache 95W	3331	HC1	A4SB
Addl Intel Xeon Processor E5-2640 v2 8C 2.0GHz 20MB Cache 95W	3331	HC1	A4SC
Addl Intel Xeon Processor E5-2650L v2 10C 1.7GHz 25MB Cache70W	3331	HC1	A4SD
Addl Intel Xeon Processor E5-2630L v2 6C 2.4GHz 15MB Cache 60W	3331	HC1	A4SE
1U Riser Card, Two PCIe x8 Slots	3331	HC1	A4T6
1U Riser Card, One PCIe x8 slot (For Slotless RAID only)	3331	HC1	A4T7
1U Riser Card, One PCIe x16 slot	3331	HC1	A4T8
Addl Intel Xeon Processor E5-2695 v2 12C 2.4GHz 30MB Cache 115W	3331	HC1	A4TF
Addl Intel Xeon Processor E5-2670 v2 10C 2.5GHz 25MB Cache 115W	3331	HC1	A4TG
Addl Intel Xeon Processor E5-2680 v2 10C 2.8GHz 25MB Cache 115W	3331	HC1	A4TH
Broadcom Single Port 10GbE SFP+ Embedded Adapter with Interposer	3331	HC1	A4X6
Intel X520 Dual Port 10GbE SFP+ Embedded Adapter with Interposer	3331	HC1	A4X7
Broadcom Dual Port 10GbE SFP+ Embedded Adapter with Interposer	3331	HC1	A4XG

Single Entity Offerings (SEOs)

Description	SEO number
IBM System x3650 M4 BD	5466A2U
	5466A4U
	5466B2U
	5466C2U
	5466C4U
	5466D2U
	5466F2U
	5466F4U
	5466G2U

The following feature numbers are automatically added to the 5372-SWX HIPO order whenever one of the hardware system units is configured in an order.

HIPO feature number	Description
A861	5466-AC1 Routing Code
A862	5466-MC1 Routing Code

Options

Description	Type	Mod	Feature	SEO number	Part number
1U Riser Card, One PCIe x16 slot	3331	HC1	A4T8	00AL182	00AL182
Rear Backplane, 2x3.5" HDD Extension To Front Array (14HDD Array)	3331	HC1	A4RT	00FK886	00FK886

Rear Backplane, 2x3.5" HDD Separate Array	3331	HC1	A4RU	00AL184	00AL184
1U Riser Card, Two PCIe x8 Slots	3331	HC1	A4T6	00AL181	00AL181
1U Riser Card, One PCIe x8 slot (For Slotless RAID only)	3331	HC1	A4T7	00AL183	00AL183
Broadcom Dual Port 10GbE SFP+ Embedded Adapter with Interposer	3331	HC1	A4XG	00AL185	00AL185
Broadcom Single Port 10GbE SFP+ Embedded Adapter with Interposer	3331	HC1	A4X6	00AL652	00AL652
Intel X520 Dual Port 10GbE SFP+ Embedded Adapter with Interposer	3331	HC1	A4X7	00AL653	00AL653
IBM System x 750W High Efficiency Platinum AC Power Supply	3331	HC1	A4RV	00AL742	00AL742
IBM System x 900W High Efficiency Platinum AC Power Supply	3331	HC1	A4RW	00AL743	00AL743
Intel Xeon Processor E5-2695 v2 12C 2.4GHz 30MB Cache 1866MHz 115W	3331	HC1	A4TF	00AL147	00AL147
Intel Xeon Processor E5-2670 v2 10C 2.5GHz 25MB Cache 1866MHz 115W	3331	HC1	A4TG	00AL148	00AL148
Intel Xeon Processor E5-2680 v2 10C 2.8GHz 25MB Cache 1866MHz 115W	3331	HC1	A4TH	00AL149	00AL149
Intel Xeon Processor E5-2603 v2 4C 1.8GHz 10MB Cache 1333MHz 80W	3331	HC1	A4S6	00AL138	00AL138
Intel Xeon Processor E5-2609 v2 4C 2.5GHz 10MB Cache 1333MHz 80W	3331	HC1	A4S7	00AL139	00AL139
Intel Xeon Processor E5-2620 v2 6C 2.1GHz 15MB Cache 1600MHz 80W	3331	HC1	A4S8	00AL140	00AL140
Intel Xeon Processor E5-2630 v2 6C 2.6GHz 15MB Cache 1600MHz 80W	3331	HC1	A4S9	00AL141	00AL141
Intel Xeon Processor E5-2630L v2 6C 2.4GHz 15MB Cache 1600MHz 60W	3331	HC1	A4SE	00AL142	00AL142
Intel Xeon Processor E5-2640 v2 8C 2.0GHz 20MB Cache 1600MHz 95W	3331	HC1	A4SC	00AL143	00AL143
Intel Xeon Processor E5-2660 v2 10C 2.2GHz 25MB Cache 1866MHz 95W	3331	HC1	A4SB	00AL144	00AL144
Intel Xeon Processor E5-2650 v2 8C 2.6GHz 20MB Cache 1866MHz 95W	3331	HC1	A4SA	00AL145	00AL145
Intel Xeon Processor E5-2650L v2 10C 1.7GHz 25MB Cache 1600MHz 70W	3331	HC1	A4SD	00AL146	00AL146

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld® ID and password are required (use IBM ID).

https://www.ibm.com/partnerworld/mem/sla.jsp?num=114-015

Publications

The following items are shipped with the System x3650 M4 BD server.

- *System x3650 M4 BD Installation and User's Guide* and *System x3650 M4 BD Installation and Service Guide* contain an introduction to the computer, installation and setup, installing options, reference information, and problem determination. The installation guide has easy-to-use text and illustrations to enable you to quickly set up your System x3650 M4 BD server. These two publications and the translation versions can be found in the Documentation CD.
- IBM Director systems management software is included.

Note: Software versions, features, and functions shipped with these systems may change as new releases become available or may be discontinued at any time.

The *System x3650 M4 BD Installation and Service Guide (ISG)* and translation versions are available from the IBM Publications Center

http://www.ibm.com/shop/publications/order

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided. Payment options for orders are via credit card (in the US) or customer number for 20 countries. A large number of publications are available online in various file formats, and they can all be downloaded by all countries, free of charge.

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When you buy IBM System x technology, include the support services you need -- to help keep both your hardware and software working for you, day after day, at peak performance. It's your first step toward helping to protect your investment and sustain high levels of system availability. We offer service-level and response-time options to fit your business needs. And we'll help you get started with a core support package that includes:

- **Continuous system monitoring**

  Electronic monitoring that helps speed up problem-solving with automated, early detection of potential problems and system errors.

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http://www.ibm.com/servers/eserver/xseries/services.html

Specified operating environment

Physical specifications

Note: The model "x" designation is geography-dependent and is spelled out explicitly in the Product number section.

	5466A2x	5466A4x
Processor	Xeon E5-2603 v2 4C (80w)	Xeon E5-2603 v2 4C (80w)
Internal speed	1.8 GHz	1.8 GHz
External speed	6.4 GTS	6.4 GTS
Number standard	1	1
Maximum	2	2
L3 cache (full-speed)	10 MB	10 MB
Memory (PC3L-12800-CL11 DDR3 1600MHz)	8 GB ECC 1600 MHz RDIMM 1 x 8 GB (4Gb,1Rx4,1.35V)	8 GB ECC 1600 MHz RDIMM 1 x 8 GB (4Gb,1Rx4,1.35V)
DIMM sockets	16	16
Capacity (4)	512 GB	512 GB
Video	SVGA	SVGA
Memory	16 MB	16 MB
HDD controller	SAS/SATA	SAS/SATA
Channels	8	8
Connector internal	2	2
Connector external	0	0
RAID controller	M5110 (no flash/cache)	M5110 (no flash/cache)
HDD (5)	open-bay 3.5"HS SAS/SATA	open-bay 3.5"HS SAS/SATA
Total bays	14 (with upgrade)	14 (with upgrade)
5.25 slim	0	0
3.5-in	14	14
Hot-swap (3.5-in)	14 (with upgrade)	14 (with upgrade)
Hot-swap (2.5-in)	0	0
Internal capacity	56 TB	56 TB
Bays available	12 standard	12 standard
5.25 slim	0	0
3.5-in tape	0	0
Hot-swap (3.5-in)	12 standard	12 standard
Hot-swap (2.5-in)	0	0
Total PCI slots	5 (with upgrade), 3 standard (4)	5 (with upgrade), 3 standard (4)
PCI-E Gen3 x8 FH/FL	2 (with upgrade)	2 (with upgrade)
PCI-E Gen3 x8 FH/HL	2 (with upgrade)	2 (with upgrade)
PCI-E Gen3 x4 LP	1 (slotless)	1 (slotless)
Slots available	2	2
PCI-E Gen3 x8 FH/FL	1 standard	1 standard
PCI-E Gen3 x8 FH/HL	1 standard	1 standard
PCI-E Gen3 x4 LP	0 (slotless)	0 (slotless)
System management	1Gb dedicated Standard	1Gb dedicated Standard
Ethernet controller	3x1 Gb	3x1 Gb
Mezz card	Dual port 10GbE SPF+	none
Power supply	750 W	750 W
Number standard	1	1
Maximum	2	2
Hot-swap	Yes	Yes
Redundant power	Optional	Optional
Auto restart	Yes	Yes

	5466B2x	5466C2x
Processor	Xeon E5-2609 v2 4C (80w)	Xeon E5-2620 v2 6C (80w)
Internal speed	2.5 GHz	2.1 GHz
External speed	6.4 GTS	7.2 GTS
Number standard	1	1
Maximum	2	2
L3 cache (full-speed)	10 MB	15 MB
Memory (PC3L-12800-CL11 DDR3 1600MHz)	8 GB ECC 1600 MHz RDIMM 1 x 8 GB	8 GB ECC 1600 MHz RDIMM 1 x 8 GB

	(4Gb,1Rx4,1.35V)	(4Gb,1Rx4,1.35V)
DIMM sockets	16	16
Capacity (4)	512 GB	512 GB
Video	SVGA	SVGA
Memory	16 MB	16 MB
HDD controller	SAS/SATA	SAS/SATA
Channels	8	8
Connector internal	2	2
Connector external	0	0
RAID controller	M5110 + 512 MB Flash	M5110 + 512 MB Flash
HDD (5)	open-bay 3.5"HS SAS/SATA	open-bay 3.5"HS SAS/SATA
Total bays	14 (with upgrade)	14 (with upgrade)
5.25 slim	0	0
3.5-in tape	0	0
Hot-swap (3.5-in)	14 (with upgrade)	14 (with upgrade)
Hot-swap (2.5-in)	0	0
Internal capacity	56 TB	56 TB
Bays available	12 standard	12 standard
5.25 slim	0	0
3.5-in tape	0	0
Hot-swap (3.5-in)	12 standard	12 standard
Hot-swap (2.5-in)	0	0
Total PCI slots	5 (with upgrade), 3 standard (4)	5 (with upgrade), 3 standard (4)
PCI-E Gen3 x8 FH/FL	2 (with upgrade)	2 (with upgrade)
PCI-E Gen3 x8 FH/HL	2 (with upgrade)	2 (with upgrade)
PCI-E Gen3 x4 LP	1 (slotless)	1 (slotless)
Slots available	2	2
PCI-E Gen3 x8 FH/FL	1 standard	1 standard
PCI-E Gen3 x8 FH/HL	1 standard	1 standard
PCI-E Gen3 x4 LP	0 (slotless)	0 (slotless)
System management	1Gb dedicated Standard	1Gb dedicated Standard
Ethernet controller	3x1 Gb(onboard)	3x1 Gb(onboard)
Mezz card	None	Dual port 10GbE SPF+
Power supply	750 W	750 W
Number standard	1	1
Maximum	2	2
Hot-swap	Yes	Yes
Redundant power	Optional	Optional
Auto restart	Yes	Yes

	5466C4x	5466D2x
Processor	Xeon E5-2620 v2 6C (80w)	Xeon E5-2630L V2 6C(60w)
Internal speed	2.1 GHz	2.4 GHz
External speed	7.2 GTS	7.2 GTS
Number standard	1	1
Maximum	2	2
L3 cache (full-speed)	15 MB	15 MB
Memory (PC3L-12800-CL11 DDR3 1600MHz)	8 GB ECC 1600 MHz RDIMM 1 x 8 GB (4Gb,1Rx4,1.35V)	8 GB ECC 1600 MHz RDIMM 1 x 8 GB (4Gb,1Rx4,1.35V)
DIMM sockets	16	16
Capacity (4)	512 GB	512 GB
Video	SVGA	SVGA
Memory	16 MB	16 MB
HDD controller	SAS/SATA	SAS/SATA
Channels	8	8
Connector internal	2	2
Connector external	0	0
RAID controller	M5110 + 512 MB Flash	M5110 + 512 MB Flash
HDD (5)	open-bay 3.5"HS SAS/SATA	open-bay 3.5"HS SAS/SATA
Total bays	14 (with upgrade)	14 (with upgrade)
5.25 slim	0	0
3.5-in tape	0	0
Hot-swap (3.5-in)	14 (with upgrade)	14 (with upgrade)
Hot-swap (2.5-in)	0	0
Internal capacity	56 TB	56 TB
Bays available	12 (standard)	12 (standard)
5.25 slim	0	0
3.5-in tape	0	0
Hot-swap (3.5-in)	12 (standard)	12 (standard)
Hot-swap (2.5-in)	0	0
Total PCI slots	5 (with upgrade),	5 (with upgrade),

	3 standard (4)	3 standard (4)
PCI-E Gen3 x8 FH/FL	2 (with upgrade)	2 (with upgrade)
PCI-E Gen3 x8 FH/HL	2 (with upgrade)	2 (with upgrade)
PCI-E Gen3 x4 LP	1 (slotless)	1 (slotless)
Slots available	2	2
PCI-E Gen3 x8 FH/FL	1 standard	1 standard
PCI-E Gen3 x8 FH/HL	1 standard	1 standard
PCI-E Gen3 x4 LP	0 (slotless)	0 (slotless)
System management	1Gb dedicated Standard	1Gb dedicated Standard
Ethernet controller	3x1 Gb	3x1 Gb
Mezz card	none	Dual port 10GbE SPF+
Power supply	750 W	750 W
Number standard	1	1
Maximum	2	2
Hot-swap	Yes	Yes
Redundant power	Optional	Optional
Auto restart	Yes	Yes

	5466F2x	5466F4x
Processor	Xeon E5-2660 v2 10C (95w)	Xeon E5-2660v2 10C (95w)
Internal speed	2.2 GHz	2.2 GHz
External speed	8.0 GTS	8.0 GTS
Number standard	1	1
Maximum	2	2
L3 cache (full-speed)	25 MB	25 MB
Memory (PC3L-12800-CL11 DDR3 1600MHz)	8 GB ECC 1600 MHz RDIMM 1 x 8 GB (4Gb,1Rx4,1.35V)	8 GB ECC 1600 MHz RDIMM 1 x 8 GB (4Gb,1Rx4,1.35V)
DIMM sockets	16	16
Capacity (4)	512 GB	512 GB
Video	SVGA	SVGA
Memory	16 MB	16 MB
HDD controller	SAS/SATA	SAS/SATA
HBA & RAID controller	N2115(12)+H1110(2 rear)	N2115(12)+H1110(2 rear)
Channels	8	8
Connector internal	2	2
Connector external	0	0
HDD (5)	open-bay 3.5"HS SAS/SATA	open-bay 3.5"HS SAS/SATA
Total bays	14 standard	14 standard
5.25 slim	0	0
3.5-in tape	0	0
Hot-swap (3.5-in)	14 standard	14 standard
Hot-swap (2.5-in)	0	0
Internal capacity	56 TB	56 TB
Bays available	14 standard	14 standard
5.25 slim	0	0
3.5-in tape	0	0
Hot-swap (3.5-in)	14 standard	14 standard
Hot-swap (2.5-in)	0	0
Total PCI slots	5 (with upgrade), 3 standard (4)	5 (with upgrade), 3 standard (4)
PCI-E Gen3 x8 FH/FL	2 (with upgrade)	2 (with upgrade)
PCI-E Gen3 x8 FH/HL	2 (with upgrade)	2 (with upgrade)
PCI-E Gen3 x4 LP	1 (slotless)	1 (slotless)
Slots available	2	2
PCI-E Gen3 x8 FH/FL	1 standard	1 standard
PCI-E Gen3 x8 FH/HL	1 standard	1 standard
PCI-E Gen3 x4 LP	0 (slotless)	0 (slotless)
System management	1Gb dedicated Standard	1Gb dedicated Standard
Ethernet controller	3x1 Gb(	3x1 Gb
Mezz card	Dual port 10GbE SPF+	none
Power supply	900 W	900 W
Number standard	1	1
Maximum	2	2
Hot-swap	Yes	Yes
Redundant power	Optional	Optional
Auto restart	Yes	Yes

	5466G2x
Processor	Xeon E5-2695 v2 12C (115w)
Internal speed	2.4 GHz
External speed	8.0 GTS

Number standard	1
Maximum	2
L3 cache (full-speed)	30 MB
L3 cache (full-speed)	8 GB ECC 1600 MHz RDIMM
Memory (PC3L-12800-	1 x 8 GB
CL11 DDR3 1600MHz)	(4Gb,1Rx4,1.35V)
DIMM sockets	16
Capacity (4)	512 GB
Video	SVGA
Memory	16 MB
HDD controller	SAS/SATA
Channels	8
Connector internal	2
Connector external	0
RAID controller	M5110 + 1 GB Flash
HDD (5)	open-bay 3.5" HS SAS/SATA
Total bays	14 (with upgrade)
5.25 slim	0
3.5-in tape	0
Hot-swap (3.5-in)	14 (with upgrade)
Hot-swap (2.5-in)	0
Internal capacity	56 TB
Bays available	12 standard
5.25 slim	0
3.5-in tape	0
Hot-swap (3.5-in)	12 standard
Hot-swap (2.5-in)	0
Total PCI slots	5 (with upgrade),
	3 standard (4
PCI-E Gen3 x8 FH/FL	2 (with upgrade)
PCI-E Gen3 x8 FH/HL	2 (with upgrade)
PCI-E Gen3 x4 LP	1 (slotless)
Slots available	2
PCI-E Gen3 x8 FH/FL	1 standard
PCI-E Gen3 x8 FH/HL	1 standard
PCI-E Gen3 x4 LP	0 (slotless)
System management	1Gb dedicated Standard
Ethernet controller	3x1 Gb(onboard)
Mezz card	None
Power supply	900 W
Number standard	1
Maximum	2
Hot-swap	Yes
Redundant power	Optional
Auto restart	Yes

(4) Maximum of 512 GB by using sixteen 32 GB optional DIMMs when two processors fitted.

(5) The standard system can hold twelve 3.5-inch HS HDDs. Maximum capacities are based on installation of fourteen 4 TB 3.5-inch SAS/SATA HDDs by adding options to enable 2x rear 3.5-inch HS HDDs. For the latest information on supported HDDs visit

http://www.ibm.com/servers/eserver/serverproven/compat/us/

(6) Populate with two PCI-e riser cards.

Note: For the latest information on supported options, refer to the *Sales Manual* or visit

http://www.ibm.com/servers/eserver/serverproven/compat/us/

No optical drive support

Video subsystem

- SVGA compatible video controller (Matrox G200eR2).
- Integrated on Integrated Management Module (iMMv2).
- Integrated on planar and connected to the PCI bus.

- DDR3 528 or 504 MHz SDRAM video memory controller.
- Video memory is not expandable.
- One DVI (Digital Video Interface) is not used.
- Avocent Digital Video Compression (with IBM Integrated Management Module Advanced Upgrade option).

Supported video modes

Width	Height	Refresh Rate (Hz)	Bpp
640	480	60	8, 16, 24
800	600	60, 72, 75	8, 16, 24
1024	768	60, 70, 75	8, 16, 24
1280	1024	60, 75	8, 16, 24
1600	1200	60	8, 16, 24
1680	1050	60, 75	8, 16, 24

The maximum resolution of the video controller is 1600 x 1200* at 75 Hz.

* The maximum screen resolution is not supported for all Bits per Pixel (color depth) and refresh rates. The maximum Bits per Pixel (color depth) is not supported for all resolutions and refresh rates.

Dimensions

2U Rack Drawer:

- Width: 447 mm (17.6 in)
- Depth: 748.8 mm (29.5 in)
- Height: 86.5 mm (3.4 in)

Rack:

- Weight:
  - Minimum configuration: 16.4 kg (36.2 lb)
  - Maximum configuration: 29.8 kg (65.6 lb)

Electrical

Models with 750 W power supplies:

- 100 to 127 (nominal) V ac; 50 Hz or 60 Hz; 8.9 A
- 200 to 240 (nominal) V ac; 50 Hz or 60 Hz; 4.5 A
  - Minimum configuration: 0.10 kVA
  - Maximum configuration: 0.75 kVA

Models with 900 W power supplies:

- 100 to 127 (nominal) V ac; 50 Hz or 60 Hz; 10 A
- 200 to 240 (nominal) V ac; 50 Hz or 60 Hz; 5 A
  - Minimum configuration: 0.10 kVA
  - Maximum configuration: 0.90 kVA

Btu output:

- Minimum configuration: 333.32 Btu/hr (AC 97.6 watts)
- Maximum configuration: 3073.66 Btu/hr (AC 900 watts)

Noise level (horizontal position):

- Operating: 6.6 bels

- Idle: 6.6 bels

Note: The noise emission level stated is the declared (upper limit) sound power level, in bels, for a random sample of machines. All measurements are made in accordance with ISO 7779 and reported in conformance with ISO 9296.

System x3650 M4 BD servers are intended for use as rack-drawer servers and are tested and designed to operate in a horizontal position.

Standards

These systems support or comply with the following standards:

- Multiprocessor Specification (MPS) 1.4
- Peripheral Component Interconnect (PCI) specification 2.3
- Hardware-enabled to meet the International Organization for Standardization (ISO) 9241, Part 3

Equipment agency approvals and safety

- FCC - Verified to comply with Part 15 of the FCC Rules, Class A
- Canada ICES-003, issue 5, Class A
- UL/IEC 60950-1
- CSA C22.2 No. 60950-1
- NOM-019
- Argentina IEC60950-1

Operating environment

Power on:

- Temperature: 5°C - 40°C (41°F - 104°F) up to 950 mm (3,117 ft); above 950 m, de-rated maximum air temperature 1°C / 175 m
- Humidity, noncondensing: -12°C dew point (10.4°F) and 8% - 85% relative humidity
- Maximum dew point: 24°C (75°F)
- Maximum altitude: 3050 m (10,000 ft) and 5°C - 28°C (41°F - 82°F)
- Maximum rate of temperature change: 5°C/hr (41°F/hr) for tape drive, 20°C/hr (68°F/hr) for HDDs

Power off :

- Temperature: 5°C to 45°C (41°F - 113°F)
- Relative humidity: 8% - 85%
- Maximum dew point: 27°C (80.6°F)

Storage (nonoperating) :

- Temperature: 1°C to 60°C (33.8°F - 140°F)
- Altitude: 3050 m (10,000 ft)
- Relative humidity: 5% - 80%
- Maximum dew point: 29°C (84.2°F)

Shipment (nonoperating) :

- Temperature: -40°C to 60°C (-40°F - 140°F)
- Altitude: 10,700 m (35,105 ft)
- Relative humidity: 5% - 100%
- Maximum dew point: 29°C (84.2°F)

Design to ASHRAE Class A3, Temperature: 36°C - 40°C (96.8°F - 104°F) with relaxed support:

- The system will support cloud-like workload with no performance degradation acceptable (Turbo-Off).
- Under no circumstance can any combination of worst-case workload and configuration result in system shutdown or design exposure at 40°C.
- The worst-case workload (like Linpack, Turbo-On) may have performance degradation.

Homologation

This product is not certified for direct connection by any means whatsoever to interfaces of public telecommunications networks. Certification may be required by law prior to making any such connection. Contact an IBM representative or reseller for any questions.

Hardware requirements

For attended installation of an operating system, this server requires a compatible:

- USB keyboard
- USB mouse
- HDD
- Display

Unattended or remote installation may be performed without requiring some or all of these components. Review your unattended software installation program information for specific hardware configuration requirements.

For service, the server requires a compatible:

- USB keyboard
- USB mouse
- HDD
- Display

When having the unit serviced, plan to have these components attached to your server either directly or indirectly via a console.

Software requirements

The following software products have been tested by IBM and software publishers in the latest available versions, and where appropriate, are, or will soon be, certified by the publisher to be compatible with the System x3650 M4 BD.

Operating systems

- Linux
  - Red Hat Enterprise Linux 6 - 32 bit
  - Red Hat Enterprise Linux 6 - 64 bit (including KVM)
  - Red Hat Enterprise Linux 5 Server x64 Edition
  - Red Hat Enterprise Linux 5 Server with Xen x64 Edition
  - SUSE Linux Enterprise Server 11 for x86
  - SUSE Linux Enterprise Server 11 for AMD64/EM64T
  - SUSE Linux Enterprise Server 11 with Xen for AMD64/EM64T

Note: For information on additional support, certification, version information, or network operating systems, visit

http://www-03.ibm.com/servers/eserver/serverproven/compat/us/

Compatibility

The System x3650 M4 BD server contains licensed system programs that include set configuration, set features, and test programs. System UEFI is loaded from a flash EEPROM into system memory. This BIOS provides instructions and interfaces designed to support the standard features of the System x3650 M4 BD server and to maintain compatibility with many current software programs.

For detailed information about IBM and non-IBM devices, adapters, software, and network operating systems supported with xSeries servers, visit

http://www-03.ibm.com/servers/eserver/serverproven/compat/us/

Contact your IBM representative or IBM Business Partner, or refer to the *IBM Sales Manual* for information on the compatibility of hardware and software for xSeries servers. The *Sales Manual* is updated periodically as new features and options are announced that support these servers.

Limitations

- Solid state memory cells have an intrinsic, finite number of write cycles that each cell can incur. As a result each solid state device has a maximum amount of write cycles it can be subjected to, documented as TBW (Total Bytes Written). IBM is not responsible for replacement of hardware that has reached the maximum guaranteed number of write cycles. This limit may be revealed as the device failing to respond to system-generated commands or becoming incapable of being written to.
- The System x3650 M4 BD server contains a single, configurable serial port. It can be configured to be operating-system-controlled, service-processor-controlled, or shared between the two. You can set the configuration by altering the BIOS. The default configuration from the factory is in the shared position. In the shared position, the service processor controls the port until the operating system is running, then the operating system takes control. The service processor can regain control of the port for user-configured dial-out situations or if the operating system is not available, but operating system control cannot be reestablished without resetting the server.
- System x3650 M4 BD servers can address a maximum of 512 GB of system memory. All supported system memory is addressable through direct memory access. The System x3650 M4 BD server supports 4 GB, 8 GB, and 16 GB DDR3 Registered DIMM memory and 32 GB LR DIMM. Refer to the Prices section for supported memory options.
- The ServeRAID H1110 Controller for IBM System X, option part number 81Y4492, is a cost-optimized hardware RAID upgrade which supports SAS or SATA drives and is supported natively by all operating systems supported on x3650 M4 BD.
- To ensure proper air flow for cooling, the System x3650 M4 BD server requires a rack with a perforated door, such as the NetBAY42 SR or NetBAY25 SR. An alternative is to remove the front door of rack cabinets where the door panel is of solid construction.
- Microprocessor upgrades must be of the same QPI link speed, Integrated Memory Controller frequency, core frequency, power segment, internal cache size, and type. Mixing processors of different stepping levels but same model (as per CPUID instruction) is supported. Mixing microprocessors of different QPI, core speed, cache size, core quantity, and power segment is not supported.
- Use the version of ServerGuide that is shipped with the system, or a later version, to load software and drivers. Earlier versions of ServerGuide may not be compatible with the server.

Refer to the Software requirements section for operating system limitations.

Customer responsibilities

System x3650 M4 BD and related options

The System x3650 M4 BD server and related options are designated as customer setup. Customer setup instructions are shipped with system and options.

Configuration information

Bay configuration

System x3650 M4 BD hot-swap models contain a DASD backplane supporting up to twelve plus two hot-swap, 3.5-inch SATA/SAS HDD bays.

Rack installations

System x3650 M4 BD 2U rack-drawer models are designed to be installed in a 19-inch rack cabinet designed for 748.4 mm (29.48-in) deep devices, such as the NetBAY42U ER and NetBAY42U SR. Installation into some of the older Netfinity® racks (9306900, 9306910, 9306200) will require a rack extension kit for proper cable bend radius and cooling.

If a System x3650 M4 BD server is mounted in a non-IBM rack, the rack must satisfy the following specifications:

- The rack must meet EIA-310-D standards for mounting flanges and hole locations.
- The front to rear distance of the mounting flanges must be 590 mm to 777 mm (thread hole 642 mm to 829 mm).
- The thickness of the mounting flanges must be 2.0 mm to 4.65 mm.
- Distance from front EIA flange to the rear of the system is 722 mm. (Including handles and latches it is 762 mm, excluding PSU handle.)
- Distance from front EIA flange to the minimum bend radius of the rear cables is 828 mm (assuming a 110-mm minimum cable bend radius).
- Distance from front EIA flange to the front bezel of the system is 32 mm. Distance from front EIA flange to the front-most portion of the system (cam handles) is 40 mm. Width of the front of the system bezel is 482.6 mm.
- Minimum horizontal opening of the inside of the rack at the front and rear EIA flanges is 450 mm. Minimum width between required internal structure to the rack to mount rail kits is 488 mm.
- The mounting flanges must have either 7.1-mm diameter holes or 9.5-mm square holes on the standard EIA hole spacing. (Tapped rack requires another universal screw option kit.)
- Distance from rack post front surface to the inner structure edge dimension is less than 100 mm (4 position).
- The rack must have a minimum depth of 50 mm (1.97 in) between the front mounting flange and inside of the front door for appropriate cooling.
- The minimum side-to-side clearance in the rack between the front and rear mounting flanges must be 467 mm (18.2 in) to accommodate the width of the server and the slide mounting brackets.
- The minimum side-to-side clearance in the rack between each door and the mounting flanges must be 484 mm (19.1 in) to accommodate the slide mounting brackets.
- The rack must include perforated front and rear doors and must not prevent the flow of cool air into or out of the rack.
- The weight-handling capacity of the rack must be able to support the maximum rack configuration, including all servers, external cables, power distribution units, and so on.
- The rack must provide proper stabilization so that the rack does not become unstable when servers are pulled out for service.

Processor options

The System x3650 M4 BD server is an Intel Xeon processor system that supports internal processing speeds of up to 2.80 GHz and processing operations to memory up to 1866 MHz. It contains an integrated, up to 30 MB shared among cores L3 cache. This dual-socket system supports a second processor with the same QPI link speed, Integrated Memory Controller frequency, core frequency, power segment, internal cache size, and type of processor as the first.

Power considerations

The System x3650 M4 BD server includes redundant 750-watt and 900-watt high-efficiency and 80 PLUS certified power supplies. These two power supplies are capable of providing sufficient power to run the server fully configured with supported devices.

Supported power options

The following power options are supported:

- 750-watt high-efficiency redundant power supply
- 900-watt high-efficiency redundant power supply

Cable orders

The dual 10/100/1000 Mbps, full-duplex, Ethernet PCIe controllers, standard with the System x3650 M4 BD server, are connected directly to independent RJ-45 connectors. The RJ-45 connectors provide a 10/100/1000BASE-T interface (either at half- or full-duplex) for connecting twisted-pair cable to the Ethernet network. Cabling is not included with the server. To connect the Ethernet controller to a repeater or switch, use a UTP cable with RJ-45 connectors at both ends. For 100 Mbps, or higher, Category 5e, or better, cabling must be used.

There are no additional cabling requirements, other than for system power, keyboard, mouse, and monitor connections.

Installability

The System x3650 M4 BD server requires about 30 minutes for installation. Installation includes unpacking, setting up, and powering on the system. Additional time is required to install an operating system, additional adapters, or features.

Packaging

One box

- System unit carton: System unit
- Country kit:
  - System x3650 M4 BD Installation Guide
  - Rack Installation Guide
  - ServeRAID Support Package

The System x3650 M4 BD server is shipped in a single package. The country kit is contained inside the system unit carton.

Processor upgrade options

- Intel Xeon processor
- Safety instructions and warranty

Security, auditability, and control

Security and auditability features include:

- Power-on and privileged-access password functions provide controls of who has access to the data and server setup program on the server.
- A set unattended boot mode allows the system keyboard to be locked to all entries except the password and at the same time allows other computers on the network to access the system disk drive.
- A selectable boot sequence can be used to prevent unauthorized installation of software or removal of data from the diskette drive.

These servers are intended to be installed and secured in a rack. It is a customer's responsibility to ensure that the server and rack installation are secure to prevent sensitive data from being removed.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

Terms and conditions

IBM Global Financing

Yes

To obtain copies of the IBM Statement of Limited Warranty, contact your reseller or IBM.

In the United States, call 800-IBM-SERV (426-7378), or write to:

Warranty Information
P.O. Box 12195
Research Triangle Park, NC 27709
Attn: Dept JDJA/B203

Warranty period

- System - Three years
- Optional features - One year

Note: For configurations that support the RAID battery, the RAID battery will be warranted for one year effective on its "Date of Installation." All other product warranty terms for the machine remain unchanged.

An IBM part or feature installed during the initial installation of an IBM machine is subject to a full warranty effective on the date of installation of the machine. An IBM part or feature that replaces a previously installed part or feature assumes the remainder of the warranty period for the replaced part or feature. An IBM part or feature added to a machine without replacing a previously installed part or feature is subject to a full warranty effective on its date of installation. Unless specified otherwise, the warranty period, type of warranty service, and service level of a part or feature are the same as those for the machine in which it is installed.

The following have been designated as consumables, supply items, or structural parts and therefore not covered by this warranty:

- Tape filler
- EMC blank filler
- EIA sET kit
- Safety cover

- Airflow baffle
- Gen-III slide kit
- Gen-III 1U CMA kit
- DVD blank filler
- Blank fan filler
- Misc part kit
- Battery holder
- PSU filler
- CMA assembly kit
- CMA, 2U/4U kit
- Remote battery tray
- Gen-III 2U CMA kit
- Slide kit
- Hard drive cage

Warranty service

If required, IBM provides repair or exchange service, depending on the type of warranty service specified below for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM. You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. Service levels are response-time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside normal IBM service area. Contact your local IBM representative or your reseller for country- and location-specific information.

The type of service is Customer Replaceable Unit (for example, keyboard, mouse, speaker, memory, or hard disk drive) Service and On-site Service.

Customer Replaceable Unit (CRU) Service

IBM provides a replacement CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request. A CRU is designated as being either a Tier 1 (mandatory) or a Tier 2 (optional) CRU. Installation of Tier 1 CRUs, as specified in this announcement, is your responsibility. If IBM installs a Tier 1 CRU at your request, you will be charged for the installation. You may install a Tier 2 CRU yourself or request IBM to install it, at no additional charge, under the type of warranty service designated for your machine.

Based upon availability, a CRU will be shipped for next business day (NBD) delivery. IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM. When return is required, return instructions and a container are shipped with the replacement CRU, and you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

The following parts or features have been designated as Tier 2 CRUs:

- System Planar Board
- Processors (CPUs)/Heatsink

Other parts, including the following been designated as Tier 1 CRUs:

- CMOS batteries

- Hard disk drives
- System fan
- Power supply
- Memory DIMM
- No optical drive
- PCI-e adapter
- Power cord
- Service label
- System label
- Hypervisor USB key
- PCI riser
- RAID card
- Tape drive
- Ethernet daughter card
- Backplanes/backplate
- RAID battery (one-year warranty)

Note: For configurations that support the RAID battery, the RAID battery will be warranted for one year effective on its "Date of Installation." All other product warranty terms for the machine remain unchanged.

On-site Service

At the discretion of IBM, you will receive CRU service or IBM or your reseller will repair the failing machine at your location and verify its operation. If required, On-site Repair can be provided for Tier 2 CRU parts. Two or more persons are required to remove this machine from the rack to a flat surface before IBM can provide on-site service. If you require IBM to remove the machine from the rack, you can purchase a warranty upgrade which will allow IBM to send two service technicians on site to remove the machine from the rack for you. On-site Repair is provided, nine hours per day, Monday through Friday excluding holidays, NBD response. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose. On-site Service is not available in all countries, and some countries have kilometer or mileage limitations from an IBM service center. In those locations where On-site Service is not available, the normal in-country service delivery is used.

Call IBM at 1-800-IBM-SERV (426-7378) to assist with problem isolation for hardware to determine if warranty service is required. Telephone support may be subject to additional charges, even during the limited warranty period.

Calls must be received by 5:00 p.m. local time in order to qualify for NBD service.

International Warranty Service

International Warranty Service (IWS) is available in selected countries or regions.

The warranty service type and the service level provided in the servicing country may be different from that provided in the country in which the machine was purchased.

Under IWS, warranty service will be provided with the prevailing warranty service type and service level available for the IWS-eligible machine type in the servicing country, and the warranty period observed will be that of the country in which the machine was purchased.

To determine the eligibility of your machine and to view a list of countries where service is available, visit

http://www-947.ibm.com/support/entry/portal/docdisplay?lndocid=GCOR-3FBJK2

For more information on IWS, refer to Services Announcement 601-034, dated September 25, 2001 .

Licensing

Programs included with this product are licensed under the terms and conditions of the License Agreements that are shipped with the system.

Maintenance services

ServicePac®, ServiceSuite®, ServiceElect, and ServiceElite

ServicePac, ServiceSuite, ServiceElect, and ServiceElite provide hardware warranty service upgrades, maintenance, and selected support services in one agreement.

Warranty service upgrade

During the warranty period, a warranty service upgrade provides an enhanced level of On-site Service for an additional charge. A warranty service upgrade must be purchased during the warranty period and is for a fixed term (duration). It is not refundable or transferable and may not be prorated. If required, IBM will provide the warranty service upgrade enhanced level of On-site Service acquired by the customer. Service levels are response-time objectives and are not guaranteed.

IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM. You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts.

CRUs will be provided as part of the machine's standard warranty CRU Service except that you may install a Tier 1 CRU yourself or request IBM installation, at no additional charge, under one of the On-site Service levels specified below.

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Maintenance service

If required, IBM provides repair or exchange service, depending on the type of maintenance service specified below for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM. You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. Service levels are response-time objectives and are not guaranteed.

CRU Service

If your problem can be resolved with a CRU (for example, keyboard, mouse, speaker, memory, or hard disk drive), IBM will ship the CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request.

IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM. When return is required, return instructions and a container are shipped with the replacement CRU, and you may be charged for the

replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

On-site Service

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Maintenance service (ICA)

Maintenance services are available for ICA legacy contracts.

Alternative service (warranty service upgrades)

During the warranty period, a warranty service upgrade provides an enhanced level of On-site Service for an additional charge. A warranty service upgrade must be purchased during the warranty period and is for a fixed term (duration). It is not refundable or transferable and may not be prorated. If required, IBM will provide the warranty service upgrade enhanced level of On-site Service acquired by the customer. Service levels are response-time objectives and are not guaranteed.

IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM. You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts.

A CRU will be provided as part of the machine's standard warranty CRU Service except that you may install a Tier 1 CRU yourself or request IBM to install it, at no additional charge, under the type of warranty service designated for your machine.

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Maintenance service

If required, IBM provides repair or exchange service, depending on the type of maintenance service specified below for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM. You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. Service levels are response-time objectives and are not guaranteed.

CRU Service

If your problem can be resolved with a CRU (for example, keyboard, mouse, speaker, memory, or hard disk drive), IBM will ship the CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request.

IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM. When return is required, return instructions and a container are shipped with the replacement CRU, and you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

On-site Service

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Non-IBM parts support

Warranty service

IBM is now shipping machines with selected non-IBM parts that contain an IBM field replaceable unit (FRU) part number label. These parts are to be serviced during the IBM machine warranty period. IBM is covering the service on these selected non-IBM parts as an accommodation to its customers, and normal warranty service procedures for the IBM machine apply.

Warranty service upgrades and maintenance services

Under certain conditions, IBM Integrated Technology Services repairs selected non-IBM parts at no additional charge for machines that are covered under warranty service upgrades or maintenance services.

IBM Service provides hardware problem determination on non-IBM parts (for example, adapter cards, PCMCIA cards, disk drives, or memory) installed within IBM machines covered under warranty service upgrades or maintenance services and provides the labor to replace the failing parts at no additional charge.

If IBM has a Technical Service Agreement with the manufacturer of the failing part, or if the failing part is an accommodations part (a part with an IBM FRU label), IBM may also source and replace the failing part at no additional charge. For all other non-IBM parts, customers are responsible for sourcing the parts. Installation labor is provided at no additional charge, if the machine is covered under a warranty service upgrade or a maintenance service.

Warranty service upgrades

IBM hourly service rate classification

One

Field-installable features

Yes

Model conversions

No

Machine installation

Customer setup. Customers are responsible for installation according to the instructions IBM provides with the machine.

Graduated program license charges apply

No

Licensed Machine Code

IBM Machine Code is licensed for use by a customer on the IBM machine for which it was provided by IBM under the terms and conditions of the IBM License Agreement for Machine Code, to enable the machine to function in accordance with its specifications, and only for the capacity authorized by IBM and acquired by the customer. You can obtain the agreement by contacting your IBM representative or visiting

http://www-304.ibm.com/servers/support/machine_warranties/machine_code.html

IBM may release changes to the Machine Code. IBM plans to make the Machine Code changes available for download from the IBM System x technical support website

http://www-304.ibm.com/systems/support/

If the machine does not function as warranted and your problem can be resolved through your application of downloadable Machine Code, you are responsible for downloading and installing these designated Machine Code changes as IBM specifies. If you would prefer, you may request IBM to install downloadable Machine Code changes; however, you may be charged for that service.

Educational allowance

None

Prices

For current prices, contact IBM at 888-Shop-IBM (746-7426) or visit

http://www-03.ibm.com/systems/x/

To locate the web price, search on the feature number in the Search field.

The following are features already announced for the 3331 machine type:

Description	Model number	Feature number	Initial/ MES/ Both support	CSU	RP MES
Rear Backplane, 2x 3.5" HDD Extension to Front Array (14HDD Array)	HC1	A4RT	MES	Yes	
Rear Backplane, 2x 3.5" HDD Separate Array	HC1	A4RU	MES	Yes	
IBM System x 750W High Efficiency Platinum AC Power Supply	HC1	A4RV	MES	Yes	
IBM System x 900W High Efficiency Platinum AC Power Supply	HC1	A4RW	MES	Yes	
Addl Intel Xeon Processor E5-2603 v2 4C 1.8GHz 10MB Cache 80W	HC1	A4S6	MES	Yes	
Addl Intel Xeon Processor E5-2609 v2 4C 2.5GHz 10MB Cache 80W	HC1	A4S7	MES	Yes	
Addl Intel Xeon Processor E5-2620 v2 6C 2.1GHz 15MB Cache 80W	HC1	A4S8	MES	Yes	
Addl Intel Xeon Processor E5-2630 v2 6C 2.6GHz 15MB Cache 80W	HC1	A4S9	MES	Yes	
Addl Intel Xeon Processor E5-2650 v2 8C 2.6GHz 20MB Cache 95W	HC1	A4SA	MES	Yes	
Addl Intel Xeon Processor E5-2660 v2 10C 2.2GHz 25MB Cache 95W	HC1	A4SB	MES	Yes	
Addl Intel Xeon Processor E5-2640 v2 8C 2.0GHz 20MB Cache 95W	HC1	A4SC	MES	Yes	
Addl Intel Xeon Processor E5-2650L v2 10C 1.7GHz 25MB Cache70W					

	HC1	A4SD	MES	Yes
Addl Intel Xeon Processor E5-2630L v2 6C 2.4GHz 15MB Cache 60W				
	HC1	A4SE	MES	Yes
1U Riser Card, Two PCIe x8 slots				
	HC1	A4T6	MES	Yes
1U Riser Card, One PCIe x8 slot (For Slotless RAID only)				
	HC1	A4T7	MES	Yes
1U Riser Card, One PCIe x16 slot				
	HC1	A4T8	MES	Yes
Addl Intel Xeon Processor E5-2695 v2 12C 2.4GHz 30MB Cache 115W				
	HC1	A4TF	MES	Yes
Addl Intel Xeon Processor E5-2670 v2 10C 2.5GHz 25MB Cache 115W				
	HC1	A4TG	MES	Yes
Addl Intel Xeon Processor E5-2680 v2 10C 2.8GHz 25MB Cache 115W				
	HC1	A4TH	MES	Yes
Broadcom Single Port 10GbE SFP+ Embedded Adapter with Interposer				
	HC1	A4X6	MES	Yes
Intel X520 Dual Port 10GbE SFP+ Embedded Adapter with Interposer				
	HC1	A4X7	MES	Yes
Broadcom Dual Port 10GbE SFP+ Embedded Adapter with Interposer				
	HC1	A4XG	MES	Yes

The following are features already announced for the 5466 machine type:

Description	Model number	Feature number	Initial/ MES/ Both support	CSU	RP MES
AC1					
	AC1			Yes	
MC1					
	MC1			Yes	
QLogic 10Gb SFP+ SR Optical Transceiver					
	AC1	0064	Initial	Yes	
	MC1		Initial	Yes	
UID Asset Tag Label					
	AC1	0747	Initial	Yes	
	MC1		Initial	Yes	
EMEA Long Leadtime Configurations					
	AC1	1763	Initial	Yes	
	MC1		Initial	Yes	
Hungary CHW plant 9SH					
	AC1	1764	Initial	Yes	
	MC1		Initial	Yes	
Guad CHW plant 9KQ					
	AC1	1765	Initial	Yes	
	MC1		Initial	Yes	
ISTC CHW 9K2					
	AC1	1766	Initial	Yes	
	MC1		Initial	Yes	
RTP CHW 9NR					
	AC1	1767	Initial	Yes	
	MC1		Initial	Yes	
Offload Manufacturing to Guadalajara HVEC					
	AC1	1768	Initial	Yes	
	MC1		Initial	Yes	
Offload Manufacturing to RTP HVEC					
	AC1	1769	Initial	Yes	
	MC1		Initial	Yes	
Offload Manufacturing to ISTC					

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                              AC1      1770          Initial  Yes
                              MC1                    Initial  Yes
Routing for AP Foxconn
                              AC1      1771          Initial  Yes
                              MC1                    Initial  Yes
Capacity Scheduling Service
                              AC1      1772          Initial  Yes
                              MC1                    Initial  Yes
Custom SLA Scheduling Service
                              AC1      1796          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for NetXtreme II 1000 Express Quad Port
Ethernet Adapter
                              AC1      2141          Initial  Yes
                              MC1                    Initial  Yes
Custom Asset Tagging - Standard
                              AC1      2200          Initial  Yes
                              MC1                    Initial  Yes
Custom Asset Tagging - Enhanced
                              AC1      2201          Initial  Yes
                              MC1                    Initial  Yes
Custom Image Load - Server
                              AC1      2204          Initial  Yes
                              MC1                    Initial  Yes
Custom Media Shipgroup
                              AC1      2206          Initial  Yes
                              MC1                    Initial  Yes
Request for Global Trade Number (UPC or EAN)
                              AC1      2207          Initial  Yes
                              MC1                    Initial  Yes
Custom Software/Firmware Setting - Standard
                              AC1      2208          Initial  Yes
                              MC1                    Initial  Yes
Custom Software/Firmware Setting - Enhanced
                              AC1      2209          Initial  Yes
                              MC1                    Initial  Yes
Custom RAID Configuration
                              AC1      2212          Initial  Yes
                              MC1                    Initial  Yes
Custom Unit Carton Label
                              AC1      2220          Initial  Yes
                              MC1                    Initial  Yes
Custom Palletization
                              AC1      2221          Initial  Yes
                              MC1                    Initial  Yes
Request for a new Vendor Logo Hardware
                              AC1      2247          Initial  Yes
                              MC1                    Initial  Yes
Request for a Classic RPQ
                              AC1      2248          Initial  Yes
                              MC1                    Initial  Yes
Request for an existing Public RPQ
                              AC1      2249          Initial  Yes
                              MC1                    Initial  Yes
RAID Configuration
                              AC1      2302          Initial  Yes
                              MC1                    Initial  Yes
Rack Installation >1U Component
                              AC1      2306          Initial  Yes
                              MC1                    Initial  Yes
Primary Array 12 HDDs
                              AC1      2400          Initial  Yes
                              MC1                    Initial  Yes
Primary Array 13 HDDs
                              AC1      2401          Initial  Yes
                              MC1                    Initial  Yes
Primary Array 14 HDDs
                              AC1      2402          Initial  Yes
                              MC1                    Initial  Yes
Secondary Array 9 HDDs
                              AC1      2405          Initial  Yes
                              MC1                    Initial  Yes
Secondary Array 10 HDDs
                              AC1      2406          Initial  Yes
```

```
                              MC1                    Initial  Yes
Secondary Array 11 HDDs
                              AC1      2407          Initial  Yes
                              MC1                    Initial  Yes
Secondary Array 12 HDDs
                              AC1      2408          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for Brocade 10Gb CNA for IBM System x
                              AC1      2492          Initial  Yes
                              MC1                    Initial  Yes
Install largest capacity, faster drives starting in
Array 1
                              AC1      2498          Initial  Yes
                              MC1                    Initial  Yes
Install smallest capacity, slower drives starting
in Array 1
                              AC1      2499          Initial  Yes
                              MC1                    Initial  Yes
NetXtreme II 1000 Express Dual Port Ethernet
Adapter
                              AC1      2995          Initial  Yes
                              MC1                    Initial  Yes
Rack 01
                              AC1      3101          Initial  Yes
                              MC1                    Initial  Yes
Rack 02
                              AC1      3102          Initial  Yes
                              MC1                    Initial  Yes
Rack 03
                              AC1      3103          Initial  Yes
                              MC1                    Initial  Yes
Rack 04
                              AC1      3104          Initial  Yes
                              MC1                    Initial  Yes
Rack 05
                              AC1      3105          Initial  Yes
                              MC1                    Initial  Yes
Rack 06
                              AC1      3106          Initial  Yes
                              MC1                    Initial  Yes
Rack 07
                              AC1      3107          Initial  Yes
                              MC1                    Initial  Yes
Rack 08
                              AC1      3108          Initial  Yes
                              MC1                    Initial  Yes
Rack 09
                              AC1      3109          Initial  Yes
                              MC1                    Initial  Yes
Rack 10
                              AC1      3110          Initial  Yes
                              MC1                    Initial  Yes
Rack 11
                              AC1      3111          Initial  Yes
                              MC1                    Initial  Yes
Rack 12
                              AC1      3112          Initial  Yes
                              MC1                    Initial  Yes
Rack 13
                              AC1      3113          Initial  Yes
                              MC1                    Initial  Yes
Rack 14
                              AC1      3114          Initial  Yes
                              MC1                    Initial  Yes
Rack 15
                              AC1      3115          Initial  Yes
                              MC1                    Initial  Yes
Rack 16
                              AC1      3116          Initial  Yes
                              MC1                    Initial  Yes
Rack 17
                              AC1      3117          Initial  Yes
                              MC1                    Initial  Yes
Rack 18
```

	AC1	3118	Initial	Yes
	MC1		Initial	Yes
Rack 19				
	AC1	3119	Initial	Yes
	MC1		Initial	Yes
Rack 20				
	AC1	3120	Initial	Yes
	MC1		Initial	Yes
Rack 21				
	AC1	3121	Initial	Yes
	MC1		Initial	Yes
Rack 22				
	AC1	3122	Initial	Yes
	MC1		Initial	Yes
Rack 23				
	AC1	3123	Initial	Yes
	MC1		Initial	Yes
Rack 24				
	AC1	3124	Initial	Yes
	MC1		Initial	Yes
Rack 25				
	AC1	3125	Initial	Yes
	MC1		Initial	Yes
Rack 26				
	AC1	3126	Initial	Yes
	MC1		Initial	Yes
Rack 27				
	AC1	3127	Initial	Yes
	MC1		Initial	Yes
Rack 28				
	AC1	3128	Initial	Yes
	MC1		Initial	Yes
Rack 29				
	AC1	3129	Initial	Yes
	MC1		Initial	Yes
Rack 30				
	AC1	3130	Initial	Yes
	MC1		Initial	Yes
Rack 31				
	AC1	3131	Initial	Yes
	MC1		Initial	Yes
Rack 32				
	AC1	3132	Initial	Yes
	MC1		Initial	Yes
Rack 33				
	AC1	3133	Initial	Yes
	MC1		Initial	Yes
Rack 34				
	AC1	3134	Initial	Yes
	MC1		Initial	Yes
Rack 35				
	AC1	3135	Initial	Yes
	MC1		Initial	Yes
Rack 36				
	AC1	3136	Initial	Yes
	MC1		Initial	Yes
Rack 37				
	AC1	3137	Initial	Yes
	MC1		Initial	Yes
Rack 38				
	AC1	3138	Initial	Yes
	MC1		Initial	Yes
Rack 39				
	AC1	3139	Initial	Yes
	MC1		Initial	Yes
Rack 40				
	AC1	3140	Initial	Yes
	MC1		Initial	Yes
Rack 41				
	AC1	3141	Initial	Yes
	MC1		Initial	Yes
Rack 42				
	AC1	3142	Initial	Yes
	MC1		Initial	Yes

```
Rack 43
                          AC1      3143          Initial  Yes
                          MC1                    Initial  Yes
Rack 44
                          AC1      3144          Initial  Yes
                          MC1                    Initial  Yes
Rack 45
                          AC1      3145          Initial  Yes
                          MC1                    Initial  Yes
Rack 46
                          AC1      3146          Initial  Yes
                          MC1                    Initial  Yes
Rack 47
                          AC1      3147          Initial  Yes
                          MC1                    Initial  Yes
Rack 48
                          AC1      3148          Initial  Yes
                          MC1                    Initial  Yes
Rack 49
                          AC1      3149          Initial  Yes
                          MC1                    Initial  Yes
Rack 50
                          AC1      3150          Initial  Yes
                          MC1                    Initial  Yes
Rack 51
                          AC1      3151          Initial  Yes
                          MC1                    Initial  Yes
Rack 52
                          AC1      3152          Initial  Yes
                          MC1                    Initial  Yes
Rack 53
                          AC1      3153          Initial  Yes
                          MC1                    Initial  Yes
Rack 54
                          AC1      3154          Initial  Yes
                          MC1                    Initial  Yes
Rack 55
                          AC1      3155          Initial  Yes
                          MC1                    Initial  Yes
Rack 56
                          AC1      3156          Initial  Yes
                          MC1                    Initial  Yes
Rack 57
                          AC1      3157          Initial  Yes
                          MC1                    Initial  Yes
Rack 58
                          AC1      3158          Initial  Yes
                          MC1                    Initial  Yes
Rack 59
                          AC1      3159          Initial  Yes
                          MC1                    Initial  Yes
Rack 60
                          AC1      3160          Initial  Yes
                          MC1                    Initial  Yes
Rack 61
                          AC1      3161          Initial  Yes
                          MC1                    Initial  Yes
Rack 62
                          AC1      3162          Initial  Yes
                          MC1                    Initial  Yes
Rack 63
                          AC1      3163          Initial  Yes
                          MC1                    Initial  Yes
Rack 64
                          AC1      3164          Initial  Yes
                          MC1                    Initial  Yes
Rack location U01
                          AC1      3201          Initial  Yes
                          MC1                    Initial  Yes
Rack location U02
                          AC1      3202          Initial  Yes
                          MC1                    Initial  Yes
Rack location U03
                          AC1      3203          Initial  Yes
```

```
                              MC1                 Initial  Yes
Rack location U04
                              AC1       3204      Initial  Yes
                              MC1                 Initial  Yes
Rack location U05
                              AC1       3205      Initial  Yes
                              MC1                 Initial  Yes
Rack location U06
                              AC1       3206      Initial  Yes
                              MC1                 Initial  Yes
Rack location U07
                              AC1       3207      Initial  Yes
                              MC1                 Initial  Yes
Rack location U08
                              AC1       3208      Initial  Yes
                              MC1                 Initial  Yes
Rack location U09
                              AC1       3209      Initial  Yes
                              MC1                 Initial  Yes
Rack location U10
                              AC1       3210      Initial  Yes
                              MC1                 Initial  Yes
Rack location U11
                              AC1       3211      Initial  Yes
                              MC1                 Initial  Yes
Rack location U12
                              AC1       3212      Initial  Yes
                              MC1                 Initial  Yes
Rack location U13
                              AC1       3213      Initial  Yes
                              MC1                 Initial  Yes
Rack location U14
                              AC1       3214      Initial  Yes
                              MC1                 Initial  Yes
Rack location U15
                              AC1       3215      Initial  Yes
                              MC1                 Initial  Yes
Rack location U16
                              AC1       3216      Initial  Yes
                              MC1                 Initial  Yes
Rack location U17
                              AC1       3217      Initial  Yes
                              MC1                 Initial  Yes
Rack location U18
                              AC1       3218      Initial  Yes
                              MC1                 Initial  Yes
Rack location U19
                              AC1       3219      Initial  Yes
                              MC1                 Initial  Yes
Rack location U20
                              AC1       3220      Initial  Yes
                              MC1                 Initial  Yes
Rack location U21
                              AC1       3221      Initial  Yes
                              MC1                 Initial  Yes
Rack location U22
                              AC1       3222      Initial  Yes
                              MC1                 Initial  Yes
Rack location U23
                              AC1       3223      Initial  Yes
                              MC1                 Initial  Yes
Rack location U24
                              AC1       3224      Initial  Yes
                              MC1                 Initial  Yes
Rack location U25
                              AC1       3225      Initial  Yes
                              MC1                 Initial  Yes
Rack location U26
                              AC1       3226      Initial  Yes
                              MC1                 Initial  Yes
Rack location U27
                              AC1       3227      Initial  Yes
                              MC1                 Initial  Yes
Rack location U28
```

```
                              AC1      3228          Initial  Yes
                              MC1                    Initial  Yes
Rack location U29
                              AC1      3229          Initial  Yes
                              MC1                    Initial  Yes
Rack location U30
                              AC1      3230          Initial  Yes
                              MC1                    Initial  Yes
Rack location U31
                              AC1      3231          Initial  Yes
                              MC1                    Initial  Yes
Rack location U32
                              AC1      3232          Initial  Yes
                              MC1                    Initial  Yes
Rack location U33
                              AC1      3233          Initial  Yes
                              MC1                    Initial  Yes
Rack location U34
                              AC1      3234          Initial  Yes
                              MC1                    Initial  Yes
Rack location U35
                              AC1      3235          Initial  Yes
                              MC1                    Initial  Yes
Rack location U36
                              AC1      3236          Initial  Yes
                              MC1                    Initial  Yes
Rack location U37
                              AC1      3237          Initial  Yes
                              MC1                    Initial  Yes
Rack location U38
                              AC1      3238          Initial  Yes
                              MC1                    Initial  Yes
Rack location U39
                              AC1      3239          Initial  Yes
                              MC1                    Initial  Yes
Rack location U40
                              AC1      3240          Initial  Yes
                              MC1                    Initial  Yes
Rack location U41
                              AC1      3241          Initial  Yes
                              MC1                    Initial  Yes
Rack location U42
                              AC1      3242          Initial  Yes
                              MC1                    Initial  Yes
Rack location U43
                              AC1      3243          Initial  Yes
                              MC1                    Initial  Yes
Rack location U44
                              AC1      3244          Initial  Yes
                              MC1                    Initial  Yes
Rack location U45
                              AC1      3245          Initial  Yes
                              MC1                    Initial  Yes
Rack location U46
                              AC1      3246          Initial  Yes
                              MC1                    Initial  Yes
Rack location U47
                              AC1      3247          Initial  Yes
                              MC1                    Initial  Yes
Emulex 8Gb FC Dual-port HBA for IBM System x
                              AC1      3581          Initial  Yes
                              MC1                    Initial  Yes
Brocade 8Gb FC Single-port HBA for IBM System x
                              AC1      3589          Initial  Yes
                              MC1                    Initial  Yes
Brocade 8Gb FC Dual-port HBA for IBM System x
                              AC1      3591          Initial  Yes
                              MC1                    Initial  Yes
IBM 3M SAS Cable
                              AC1      3707          Initial  Yes
                              MC1                    Initial  Yes
IBM 1M SAS Cable
                              AC1      3708          Initial  Yes
                              MC1                    Initial  Yes
```

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IBM USB Conversion Option Pack
                              AC1      3756          Initial  Yes
                              MC1                    Initial  Yes
IBM Single Cable USB Conversion Option (UCO)
                              AC1      3757          Initial  Yes
                              MC1                    Initial  Yes
2U bracket for Emulex 8Gb FC Dual-port HBA for
System x
                              AC1      4048          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for NetXtreme II 1000 Express Dual Port
Ethernet Adapter
                              AC1      4055          Initial  Yes
                              MC1                    Initial  Yes
IBM Serial Conversion Option (SCO)
                              AC1      5340          Initial  Yes
                              MC1                    Initial  Yes
IBM Virtual Media Conversion Option Gen2 (VCO2)
                              AC1      5341          Initial  Yes
                              MC1                    Initial  Yes
QLogic 10Gb CNA for IBM System x
                              AC1      5751          Initial  Yes
                              MC1                    Initial  Yes
NetXtreme II 1000 Express Quad Port Ethernet
Adapter
                              AC1      5766          Initial  Yes
                              MC1                    Initial  Yes
Intel Ethernet Dual Port Server Adapter I340-T2 for
IBM System x
                              AC1      5767          Initial  Yes
                              MC1                    Initial  Yes
Intel Ethernet Quad Port Server Adapter I340-T4 for
IBM System x
                              AC1      5768          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for QLogic 10Gb CNA for IBM System x
                              AC1      5787          Initial  Yes
                              MC1                    Initial  Yes
Select Storage devices - no IBM-configured RAID
required
                              AC1      5977          Initial  Yes
                              MC1                    Initial  Yes
Select Storage devices - IBM-configured RAID
                              AC1      5978          Initial  Yes
                              MC1                    Initial  Yes
1.5m, 10A/100-250V, C13 to IEC 320-C14 Rack Power
Cable
                              AC1      6201          Initial  Yes
                              MC1                    Initial  Yes
2.8m, 10A/100-250V, C13 to IEC 320-C20 Rack Power
Cable
                              AC1      6204          Initial  Yes
                              MC1                    Initial  Yes
Line cord - 4.3M, 10A/125V, C13 to NEMA 5-15P (US)
                              AC1      6207          Initial  Yes
                              MC1                    Initial  Yes
4.3m, 10A/100-250V, C13 to IEC 320-C14 Rack Power
Cable
                              AC1      6263          Initial  Yes
                              MC1                    Initial  Yes
2.8m, 10A/100-250V, C13 to IEC 320-C14 Rack Power
Cable
                              AC1      6311          Initial  Yes
                              MC1                    Initial  Yes
2.8m, 10A/120V, C13 to NEMA 5-15P (US) Line Cord
                              AC1      6313          Initial  Yes
                              MC1                    Initial  Yes
Rack power cable - 2.0m, 125-250V, C13 to IEC
320-C14 (WW)
                              AC1      6316          Initial  Yes
                              MC1                    Initial  Yes
Line cord - 1.8m, 10A/250V, C13 to NEMA 6-15P (US)
                              AC1      6351          Initial  Yes
                              MC1                    Initial  Yes
```

Line cord - 1.8M, 10A/125V, C13 to NEMA 5-15P (US)				
	AC1	6369	Initial	Yes
	MC1		Initial	Yes
Line cord - 2.8m, 10A/250V, C13 to NEMA 6-15P (US)				
	AC1	6372	Initial	Yes
	MC1		Initial	Yes
Primary Array 2 HDDs				
	AC1	7008	Initial	Yes
	MC1		Initial	Yes
Primary Array 3 HDDs				
	AC1	7009	Initial	Yes
	MC1		Initial	Yes
Primary Array 4 HDDs				
	AC1	7010	Initial	Yes
	MC1		Initial	Yes
Primary Array 5 HDDs				
	AC1	7011	Initial	Yes
	MC1		Initial	Yes
Primary Array 6 HDDs				
	AC1	7012	Initial	Yes
	MC1		Initial	Yes
Primary Array 7 HDDs				
	AC1	7013	Initial	Yes
	MC1		Initial	Yes
Primary Array 8 HDDs				
	AC1	7014	Initial	Yes
	MC1		Initial	Yes
Secondary Array 2 HDDs				
	AC1	7015	Initial	Yes
	MC1		Initial	Yes
Secondary Array 3 HDDs				
	AC1	7016	Initial	Yes
	MC1		Initial	Yes
Secondary Array 4 HDDs				
	AC1	7017	Initial	Yes
	MC1		Initial	Yes
Secondary Array 5 HDDs				
	AC1	7057	Initial	Yes
	MC1		Initial	Yes
Secondary Array 6 HDDs				
	AC1	7058	Initial	Yes
	MC1		Initial	Yes
Secondary Array 7 HDDs				
	AC1	7059	Initial	Yes
	MC1		Initial	Yes
Secondary Array 8 HDDs				
	AC1	7060	Initial	Yes
	MC1		Initial	Yes
China Warranty				
	AC1	7599	Initial	Yes
	MC1		Initial	Yes
Primary Array 9 HDDs				
	AC1	7664	Initial	Yes
	MC1		Initial	Yes
Grouped Product				
	AC1	7830	Initial	Yes
	MC1		Initial	Yes
Customer Solution Center Services				
	AC1	7831	Initial	Yes
	MC1		Initial	Yes
e1350 Special Bid Solution Component				
	AC1	7929	Initial	Yes
	MC1		Initial	Yes
No HDD Selected				
	AC1	8026	Initial	Yes
	MC1		Initial	Yes
Consolidate Shipment				
	AC1	8031	Initial	Yes
	MC1		Initial	Yes
e1350 Solution Component				
	AC1	8034	Initial	Yes
	MC1		Initial	Yes
Compute Node				
	AC1	8036	Initial	Yes

```
                          MC1                 Initial  Yes
Management Node
                          AC1      8037       Initial  Yes
                          MC1                 Initial  Yes
Storage Node
                          AC1      8038       Initial  Yes
                          MC1                 Initial  Yes
TAA Compliant Order
                          AC1      8067       Initial  Yes
                          MC1                 Initial  Yes
General Racking Solution
                          AC1      8072       Initial  Yes
                          MC1                 Initial  Yes
No SATA HDD Selected
                          AC1      8080       Initial  Yes
                          MC1                 Initial  Yes
No 2.5" SAS HDD Selected
                          AC1      8081       Initial  Yes
                          MC1                 Initial  Yes
No 3.5" SAS HDD Selected
                          AC1      8082       Initial  Yes
                          MC1                 Initial  Yes
No Publications Selected
                          AC1      8086       Initial  Yes
                          MC1                 Initial  Yes
Integrate in manufacturing
                          AC1      8971       Initial  Yes
                          MC1                 Initial  Yes
Ship Uninstalled (Safety)
                          AC1      8972       Initial  Yes
                          MC1                 Initial  Yes
Hot Spare
                          AC1      9013       Initial  Yes
                          MC1                 Initial  Yes
Enable Memory Mirroring
                          AC1      9017       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 01
                          AC1      9170       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 02
                          AC1      9171       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 03
                          AC1      9172       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 04
                          AC1      9173       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 05
                          AC1      9174       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 06
                          AC1      9175       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 07
                          AC1      9176       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 08
                          AC1      9177       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 09
                          AC1      9178       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 10
                          AC1      9179       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 11
                          AC1      9180       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 12
                          AC1      9181       Initial  Yes
                          MC1                 Initial  Yes
Storage Subsystem ID 13
```

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                              AC1      9182          Initial  Yes
                              MC1                    Initial  Yes
Storage Subsystem ID 14
                              AC1      9183          Initial  Yes
                              MC1                    Initial  Yes
Storage Subsystem ID 15
                              AC1      9184          Initial  Yes
                              MC1                    Initial  Yes
Storage Subsystem ID 16
                              AC1      9185          Initial  Yes
                              MC1                    Initial  Yes
Storage Subsystem ID 17
                              AC1      9186          Initial  Yes
                              MC1                    Initial  Yes
Storage Subsystem ID 18
                              AC1      9187          Initial  Yes
                              MC1                    Initial  Yes
Storage Subsystem ID 19
                              AC1      9188          Initial  Yes
                              MC1                    Initial  Yes
Storage Subsystem ID 20
                              AC1      9189          Initial  Yes
                              MC1                    Initial  Yes
Preload Specify
                              AC1      9200          Initial  Yes
                              MC1                    Initial  Yes
Red Hat Specify
                              AC1      9202          Initial  Yes
SuSE Specify
                              AC1      9203          Initial  Yes
Drop-in-the-Box Specify
                              AC1      9205          Initial  Yes
                              MC1                    Initial  Yes
No Preload Specify
                              AC1      9206          Initial  Yes
                              MC1                    Initial  Yes
Preload by Hardware Feature Specify
                              AC1      9220          Initial  Yes
                              MC1                    Initial  Yes
Primary Array 10 HDDs
                              AC1      9714          Initial  Yes
                              MC1                    Initial  Yes
Primary Array 11 HDDs
                              AC1      9715          Initial  Yes
                              MC1                    Initial  Yes
Software Application (Not Preinstalled) Specify
                              AC1      A0UF          Initial  Yes
                              MC1                    Initial  Yes
Advanced Grouping
                              AC1      A102          Initial  Yes
                              MC1                    Initial  Yes
System x Cluster Upgrade
                              AC1      A103          Initial  Yes
                              MC1                    Initial  Yes
Broadcom NetXtreme II Dual Port 10GBaseT Adapter
for IBM System x
                              AC1      A18Y          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for Broadcom NetXtreme II Dual Port
10GBaseT Adapter
                              AC1      A190          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5100 Series 512MB Cache/RAID 5 Upgrade
for IBM System x
                              AC1      A1J3          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5100 Series 512MB Flash/RAID 5 Upgrade
for IBM System x
                              AC1      A1J4          Initial  Yes
                              MC1                    Initial  Yes
IBM Integrated Management Module Advanced Upgrade
                              AC1      A1ML          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M1115 SAS/SATA Controller for IBM System
```

```
x
                              AC1      A1MZ          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5120 SAS/SATA Controller for IBM System
x
                              AC1      A1WX          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5100 Series 1GB Flash/RAID 5 Upgrade for
IBM System x
                              AC1      A1WY          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M1100 Series Zero Cache/RAID 5 Upgrade
for IBM System x
                              AC1      A1X1          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5100 Series Zero Cache/RAID 5 Upgrade
for IBM System x
                              AC1      A1X2          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5100 Series RAID 6 Upgrade for IBM
System x
                              AC1      A1X3          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID H1110 SAS/SATA Controller for IBM System
x
                              AC1      A1XL          Initial  Yes
                              MC1                    Initial  Yes
2U bracket for low profile-internal-storage
adapters
                              AC1      A1XM          Initial  Yes
                              MC1                    Initial  Yes
Rail Kit for x3630 M4 and x3530 M4
                              AC1      A2O7          Initial  Yes
                              MC1                    Initial  Yes
x3630 M4 Package
                              AC1      A2OP          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5100 Series 875mm Flash Power Module
Cable
                              AC1      A22C          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5100 Series Battery Kit for IBM System x
                              AC1      A22E          Initial  Yes
                              MC1                    Initial  Yes
950MM Cable for ServRAID M5100 Series Battery Kit
                              AC1      A22G          Initial  Yes
                              MC1                    Initial  Yes
2U bracket for low profile-external-storage
adapters
                              AC1      A22L          Initial  Yes
                              MC1                    Initial  Yes
IBM 1TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD
                              AC1      A22P          Initial  Yes
                              MC1                    Initial  Yes
IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD
                              AC1      A22S          Initial  Yes
                              MC1                    Initial  Yes
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD
                              AC1      A22T          Initial  Yes
                              MC1                    Initial  Yes
IBM 500GB 7.2K 6Gbps NL SATA 3.5" G2HS HDD
                              AC1      A22Y          Initial  Yes
                              MC1                    Initial  Yes
IBM 1TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD
                              AC1      A26M          Initial  Yes
                              MC1                    Initial  Yes
Label KC
                              AC1      A2CM          Initial  Yes
                              MC1                    Initial  Yes
Intel x520 Dual Port 10GbE SFP+ Adapter for IBM
System x
                              AC1      A2EC          Initial  Yes
                              MC1                    Initial  Yes
Intel X540-T2 Dual Port 10GBaseT Adapter for IBM
```

```
System x
                          AC1      A2ED          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 01
                          AC1      A2HP          Initial
                          MC1                    Initial
Configuration ID 02
                          AC1      A2HQ          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 03
                          AC1      A2HR          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 04
                          AC1      A2HS          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 05
                          AC1      A2HT          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 06
                          AC1      A2HU          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 07
                          AC1      A2HV          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 08
                          AC1      A2HW          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 09
                          AC1      A2HX          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 10
                          AC1      A2HY          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 11
                          AC1      A2HZ          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 12
                          AC1      A2J0          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 13
                          AC1      A2J1          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 14
                          AC1      A2J2          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 15
                          AC1      A2J3          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 16
                          AC1      A2J4          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 17
                          AC1      A2J5          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 18
                          AC1      A2J6          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 19
                          AC1      A2J7          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 20
                          AC1      A2J8          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 21
                          AC1      A2J9          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 22
                          AC1      A2JA          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 23
                          AC1      A2JB          Initial  Yes
                          MC1                    Initial  Yes
Configuration ID 24
                          AC1      A2JC          Initial  Yes
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                              MC1                 Initial  Yes
Configuration ID 25
                              AC1      A2JD       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 26
                              AC1      A2JE       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 27
                              AC1      A2JF       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 28
                              AC1      A2JG       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 29
                              AC1      A2JH       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 30
                              AC1      A2JJ       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 31
                              AC1      A2JK       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 32
                              AC1      A2JL       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 33
                              AC1      A2JM       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 34
                              AC1      A2JN       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 35
                              AC1      A2JP       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 36
                              AC1      A2JQ       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 37
                              AC1      A2JR       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 38
                              AC1      A2JS       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 39
                              AC1      A2JT       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 40
                              AC1      A2JU       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 41
                              AC1      A2JV       Initial  Yes
                              MC1                 Initial  Yes
Configuration ID 42
                              AC1      A2JW       Initial  Yes
                              MC1                 Initial  Yes
Controller 01
                              AC1      A2JX       Initial  Yes
                              MC1                 Initial  Yes
Controller 02
                              AC1      A2JY       Initial  Yes
                              MC1                 Initial  Yes
Controller 03
                              AC1      A2JZ       Initial  Yes
                              MC1                 Initial  Yes
Controller 04
                              AC1      A2K0       Initial  Yes
                              MC1                 Initial  Yes
Controller 05
                              AC1      A2K1       Initial  Yes
                              MC1                 Initial  Yes
Primary Array - RAID 0
                              AC1      A2K6       Initial  Yes
                              MC1                 Initial  Yes
Primary Array - RAID 1
```

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                              AC1      A2K7          Initial  Yes
                              MC1                    Initial  Yes
Primary Array - RAID 1E
                              AC1      A2K8          Initial  Yes
                              MC1                    Initial  Yes
Primary Array - RAID 5
                              AC1      A2K9          Initial  Yes
                              MC1                    Initial  Yes
Primary Array - RAID 6
                              AC1      A2KA          Initial  Yes
                              MC1                    Initial  Yes
Primary Array - RAID 10
                              AC1      A2KB          Initial  Yes
                              MC1                    Initial  Yes
Secondary Array - RAID 0
                              AC1      A2KF          Initial  Yes
                              MC1                    Initial  Yes
Secondary Array - RAID 1
                              AC1      A2KG          Initial  Yes
                              MC1                    Initial  Yes
Secondary Array - RAID 5
                              AC1      A2KJ          Initial  Yes
                              MC1                    Initial  Yes
Secondary Array - RAID 6
                              AC1      A2KK          Initial  Yes
                              MC1                    Initial  Yes
Secondary Array - RAID 10
                              AC1      A2KL          Initial  Yes
                              MC1                    Initial  Yes
x3630 M4 Shipping Bracket
                              AC1      A2M3          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5100 Series SSD Performance Key for IBM
System x
                              AC1      A2MC          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5100 Series SSD Caching Enabler for IBM
System x
                              AC1      A2MD          Initial  Yes
                              MC1                    Initial  Yes
IBM 3TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD
                              AC1      A2R2          Initial  Yes
                              MC1                    Initial  Yes
IBM 2TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD
                              AC1      A2U0          Initial  Yes
                              MC1                    Initial  Yes
Broadcom NetXtreme I Quad Port GbE Adapter for IBM
System x
                              AC1      A2V3          Initial  Yes
                              MC1                    Initial  Yes
Broadcom NetXtreme I Dual Port GbE Adapter for IBM
System x
                              AC1      A2V4          Initial  Yes
                              MC1                    Initial  Yes
Broadcom NetXtreme I Quad Port GbE Adapter - 2U
Bracket
                              AC1      A2VX          Initial  Yes
                              MC1                    Initial  Yes
Broadcom NetXtreme I Dual Port GbE Adapter - 2U
Bracket
                              AC1      A2VY          Initial  Yes
                              MC1                    Initial  Yes
2U bracket for Emulex 16Gb FC Single-port HBA for
System x
                              AC1      A2W1          Initial  Yes
                              MC1                    Initial  Yes
2U bracket for Emulex 16Gb FC Dual-port HBA for
System x
                              AC1      A2W2          Initial  Yes
                              MC1                    Initial  Yes
Emulex 16Gb FC Single-port HBA for IBM System x
                              AC1      A2W5          Initial  Yes
                              MC1                    Initial  Yes
Emulex 16Gb FC Dual-port HBA for IBM System x
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                              AC1      A2W6          Initial  Yes
                              MC1                    Initial  Yes
No Power Cord Validation
                              AC1      A2X0          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for Brocade 16Gb FC Single-port HBA for
IBM System x
                              AC1      A2XS          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for Brocade 16Gb FC Dual-port HBA for
IBM System x
                              AC1      A2XT          Initial  Yes
                              MC1                    Initial  Yes
Brocade 16Gb FC Single-port HBA for IBM System x
                              AC1      A2XU          Initial  Yes
                              MC1                    Initial  Yes
Brocade 16Gb FC Dual-port HBA for IBM System x
                              AC1      A2XV          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5110 SAS/SATA Controller for IBM System
x
                              AC1      A347          Initial  Yes
                              MC1                    Initial  Yes
IBM 300GB 15K 6Gbps SAS 3.5" G2HS HDD
                              AC1      A3DV          Initial  Yes
                              MC1                    Initial  Yes
IBM 450GB 15K 6Gbps SAS 3.5" G2HS HDD
                              AC1      A3DW          Initial  Yes
                              MC1                    Initial  Yes
IBM 600GB 15K 6Gbps SAS 3.5" G2HS HDD
                              AC1      A3DX          Initial  Yes
                              MC1                    Initial  Yes
IBM 1.2TB High IOPS MLC Mono Adapter
                              AC1      A3DY          Initial  Yes
                              MC1                    Initial  Yes
IBM 64GB SATA 3.5" MLC HS Enterprise Value SSD
                              AC1      A3G1          Initial  Yes
                              MC1                    Initial  Yes
IBM 512GB SATA 3.5" MLC HS Enterprise Value SSD
                              AC1      A3G2          Initial  Yes
                              MC1                    Initial  Yes
IBM 128GB SATA 3.5" MLC HS Enterprise Value SSD
                              AC1      A3G3          Initial  Yes
                              MC1                    Initial  Yes
IBM 256GB SATA 3.5" MLC HS Enterprise Value SSD
                              AC1      A3G4          Initial  Yes
                              MC1                    Initial  Yes
IBM 365GB High IOPS MLC Mono Adapter
                              AC1      A3J3          Initial  Yes
                              MC1                    Initial  Yes
IBM 785GB High IOPS MLC Mono Adapter
                              AC1      A3J4          Initial  Yes
                              MC1                    Initial  Yes
QLogic 16Gb FC Single-port HBA for IBM System x
                              AC1      A3KW          Initial  Yes
                              MC1                    Initial  Yes
QLogic 16Gb FC Dual-port HBA for IBM System x
                              AC1      A3KX          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for QLogic 16Gb FC Single-port HBA
                              AC1      A3KY          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for QLogic 16Gb FC Dual-port HBA
                              AC1      A3KZ          Initial  Yes
                              MC1                    Initial  Yes
Qlogic 8200 Dual Port 10GbE SFP+ VFA for IBM System
x
                              AC1      A3MR          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for Qlogic 8200 Dual Port 10GbE SFP+ VFA
                              AC1      A3MS          Initial  Yes
                              MC1                    Initial  Yes
Qlogic 8200 VFA FCoE/iSCSI License for IBM System x
(FoD)
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                              AC1      A3MT          Initial  Yes
                              MC1                    Initial  Yes
N2125 SAS/SATA HBA for IBM System x
                              AC1      A3MV          Initial  Yes
                              MC1                    Initial  Yes
N2115 SAS/SATA HBA for IBM System x
                              AC1      A3MW          Initial  Yes
                              MC1                    Initial  Yes
Mellanox ConnectX-3 10 GbE Adapter for IBM System x
                              AC1      A3PM          Initial  Yes
                              MC1                    Initial  Yes
Mellanox ConnectX-3 FDR VPI IB/E Adapter for IBM
System x
                              AC1      A3PN          Initial  Yes
                              MC1                    Initial  Yes
8GB (1x8GB, 2Rx8, 1.35V) PC3L-12800 CL11 ECC DDR3
1600MHz LP UDIMM
                              AC1      A3QC          Initial  Yes
                              MC1                    Initial  Yes
4GB (1x4GB, 1Rx4, 1.5V) PC3-14900 CL13 ECC DDR3
1866MHz LP RDIMM
                              AC1      A3QD          Initial  Yes
                              MC1                    Initial  Yes
4GB (1x4GB, 1Rx4, 1.35V) PC3L-12800 CL11 ECC DDR3
1600MHz LP RDIMM
                              AC1      A3QE          Initial  Yes
                              MC1                    Initial  Yes
8GB (1x8GB, 1Rx4, 1.5V) PC3-14900 CL13 ECC DDR3
1866MHz LP RDIMM
                              AC1      A3QG          Initial  Yes
                              MC1                    Initial  Yes
8GB (1x8GB, 1Rx4, 1.35V) PC3L-12800 CL11 ECC DDR3
1600MHz LP RDIMM
                              AC1      A3QH          Initial  Yes
                              MC1                    Initial  Yes
8GB (1x8GB, 2Rx8, 1.35V) PC3L-12800 CL11 ECC DDR3
1600MHz LP RDIMM
                              AC1      A3QK          Initial  Yes
                              MC1                    Initial  Yes
16GB (1x16GB, 2Rx4, 1.5V) PC3-14900 CL13 ECC DDR3
1866MHz LP RDIMM
                              AC1      A3QL          Initial  Yes
                              MC1                    Initial  Yes
16GB (1x16GB, 2Rx4, 1.35V) PC3L-12800 CL11 ECC DDR3
1600MHz LP RDIMM
                              AC1      A3QM          Initial  Yes
                              MC1                    Initial  Yes
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD
                              AC1      A3W9          Initial  Yes
                              MC1                    Initial  Yes
3U Bracket for Mellanox ConnectX-3 FDR VPI IB/E
Adapter
                              AC1      A3WF          Initial  Yes
                              MC1                    Initial  Yes
3U Bracket for Mellanox ConnectX-3 10 GbE Adapter
                              AC1      A3WG          Initial  Yes
                              MC1                    Initial  Yes
NVIDIA Quadro K600
                              AC1      A3WH          Initial  Yes
                              MC1                    Initial  Yes
N2215 SAS/SATA HBA for IBM System x
                              AC1      A3YY          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5210 SAS/SATA Controller for IBM System
x
                              AC1      A3YZ          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5200 Series 1GB Cache/RAID 5 Upgrade for
IBM Systems
                              AC1      A3Z0          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5200 Series 1GB Flash/RAID 5 Upgrade for
IBM Systems
                              AC1      A3Z1          Initial  Yes
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                              MC1                    Initial  Yes
ServeRAID M5200 Series 2GB Flash/RAID 5 Upgrade for
IBM Systems
                              AC1      A3Z2          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5200 Series RAID 6 Upgrade for IBM
Systems-FoD
                              AC1      A3Z5          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5200 Series Zero Cache/RAID 5 Upgrade
for IBM Systems-FoD
                              AC1      A3Z6          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5200 Series Performance Accelerator for
IBM Systems-FoD
                              AC1      A3Z7          Initial  Yes
                              MC1                    Initial  Yes
ServeRAID M5200 Series SSD Caching Enabler for IBM
Systems-FoD
                              AC1      A3Z8          Initial  Yes
                              MC1                    Initial  Yes
Capacity Scheduling Service - Indirect
                              AC1      A46A          Initial  Yes
                              MC1                    Initial  Yes
Custom SLA Scheduling Service - Indirect
                              AC1      A46B          Initial  Yes
                              MC1                    Initial  Yes
Super Cap Cable 925mm for ServRAID M5200 Series
Flash
                              AC1      A47F          Initial  Yes
                              MC1                    Initial  Yes
Solarflare SFN5162F MR Dual Port 10GbE SFP+ Adapter
for IBM System x
                              AC1      A47H          Initial  Yes
                              MC1                    Initial  Yes
Solarflare SFN6122F LL Dual Port 10GbE SFP+ Adapter
for IBM System x
                              AC1      A47J          Initial  Yes
                              MC1                    Initial  Yes
32GB (1x32GB, 4Rx4, 1.5V) PC3-14900 CL13 ECC DDR3
1866MHz LP LRDIMM
                              AC1      A47K          Initial  Yes
                              MC1                    Initial  Yes
Populate and Boot From Rear Drives
                              AC1      A483          Initial  Yes
                              MC1                    Initial  Yes
2U Bracket for Solarflare Dual Port 10GbE SFP+
Adapter
                              AC1      A48R          Initial  Yes
                              MC1                    Initial  Yes
IBM 4TB 7.2K 6Gbps NL SAS 3.5'' G2HS HDD
                              AC1      A4AF          Initial  Yes
                              MC1                    Initial  Yes
2U bracket for low profile-internal-storage adapter
                              AC1      A4C1          Initial  Yes
                              MC1                    Initial  Yes
Broadcom Single Port 10GbE SFP+ Embedded
Adapter for IBM System x
                              AC1      A4C3          Initial  Yes
                              MC1                    Initial  Yes
Intel X520 Dual Port 10GbE SFP+ Embedded
Adapter for IBM System x
                              AC1      A3JS          Initial  Yes
                              MC1                    Initial  Yes
x3650 M4 BD Chassis ASM w/o Planar
                              AC1      A4RG          Initial  Yes
                              MC1                    Initial  Yes
BIOS GBM
                              AC1      A4RH          Initial  Yes
                              MC1                    Initial  Yes
1U RISER CAGE - SLOT 2
                              AC1      A4RJ          Initial  Yes
                              MC1                    Initial  Yes
1U BUTTERFLY RISER CAGE - SLOT 1
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                              AC1      A4RK          Initial  Yes
                              MC1                    Initial  Yes
IBM 3.5" Hot Swap Filler
                              AC1      A4RL          Initial  Yes
                              MC1                    Initial  Yes
CFF PSU FILLER
                              AC1      A4RM          Initial  Yes
                              MC1                    Initial  Yes
Agency Label
                              AC1      A4RN          Initial  Yes
                              MC1                    Initial  Yes
Label GBM
                              AC1      A4RP          Initial  Yes
                              MC1                    Initial  Yes
x3650 M4 BD Planar
                              AC1      A4RQ          Initial  Yes
                              MC1                    Initial  Yes
3.5" Hot Swap BP Bracket Assembly, 12 x 3.5"
                              AC1      A4RR          Initial  Yes
                              MC1                    Initial  Yes
3.5" Hot Swap Cage Assembly, Rear, 2 x 3.5"(Cage
Only)
                              AC1      A4RS          Initial  Yes
                              MC1                    Initial  Yes
Rear Backplane, 2x3.5" HDD Extension To
Front Array (14HDD Array)
                              AC1      A4RT          Initial  Yes
                              MC1                    Initial  Yes
Rear Backplane, 2x3.5" HDD Separate Array
                              AC1      A4RU          Initial  Yes
                              MC1                    Initial  Yes
IBM System x 750W High Efficiency Platinum AC Power
Supply
                              AC1      A4RV          Initial  Yes
                              MC1                    Initial  Yes
IBM System x 900W High Efficiency Platinum AC Power
Supply
                              AC1      A4RW          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2603 v2 4C 1.8GHz 10MB
Cache 1333MHz 80W
                              AC1      A4RX          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2609 v2 4C 2.5GHz 10MB
Cache 1333MHz 80W
                              AC1      A4RY          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2620 v2 6C 2.1GHz 15MB
Cache 1600MHz 80W
                              AC1      A4RZ          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2630 v2 6C 2.6GHz 15MB
Cache 1600MHz 80W
                              AC1      A4S0          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2630L v2 6C 2.4GHz 15MB
Cache 1600MHz 60W
                              AC1      A4S1          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2640 v2 8C 2.0GHz 20MB
Cache1600MHz 95W
                              AC1      A4S2          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2660 v2 10C 2.2GHz 25MB
Cache 1866MHz 95W
                              AC1      A4S3          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2650 v2 8C 2.6GHz 20MB
Cache 1866MHz 95W
                              AC1      A4S4          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2650L v2 10C 1.7GHz 25MB
Cache 1600MHz 70W
                              AC1      A4S5          Initial  Yes
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                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2603 v2 4C 1.8GHz 10MB
Cache 80W
                              AC1      A4S6          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2609 v2 4C 2.5GHz 10MB
Cache 80W
                              AC1      A4S7          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2620 v2 6C 2.1GHz 15MB
Cache 80W
                              AC1      A4S8          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2630 v2 6C 2.6GHz 15MB
Cache 80W
                              AC1      A4S9          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2650 v2 8C 2.6GHz 20MB
Cache 95W
                              AC1      A4SA          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2660 v2 10C 2.2GHz
25MB Cache 95W
                              AC1      A4SB          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2640 v2 8C 2.0GHz 20MB
Cache 95W
                              AC1      A4SC          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2650L v2 10C 1.7GHz
25MB Cache70W
                              AC1      A4SD          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2630L v2 6C 2.4GHz
15MB Cache 60W
                              AC1      A4SE          Initial  Yes
                              MC1                    Initial  Yes
1U Riser Card, Two PCIe x8 Slots
                              AC1      A4T6          Initial  Yes
                              MC1                    Initial  Yes
1U Riser Card, One PCIe x8 slot (For
Slotless RAID only)
                              AC1      A4T7          Initial  Yes
                              MC1                    Initial  Yes
1U Riser Card, One PCIe x16 slot
                              AC1      A4T8          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2695 v2 12C 2.4GHz 30MB
Cache 1866MHz 115W
                              AC1      A4T9          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2670 v2 10C 2.5GHz 25MB
Cache 1866MHz 115W
                              AC1      A4TA          Initial  Yes
                              MC1                    Initial  Yes
Intel Xeon Processor E5-2680 v2 10C 2.8GHz 25MB
Cache 1866MHz 115W
                              AC1      A4TB          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2695 v2 12C 2.4GHz
30MB Cache 115W
                              AC1      A4TF          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2670 v2 10C 2.5GHz
25MB Cache 115W
                              AC1      A4TG          Initial  Yes
                              MC1                    Initial  Yes
Addl Intel Xeon Processor E5-2680 v2 10C 2.8GHz
25MB Cache 115W
                              AC1      A4TH          Initial  Yes
                              MC1                    Initial  Yes
Cable, IPASS, 760mm for 6Gb cards
                              AC1      A4TJ          Initial  Yes
                              MC1                    Initial  Yes
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Cable, IPASS, semi-HD, 820mm for 12Gb cards				
	AC1	A4TK	Initial	Yes
	MC1		Initial	Yes
System Documentation and Software-US English				
	AC1	A4WC	Initial	Yes
	MC1		Initial	Yes
Broadcom Single Port 10GbE SFP+ Embedded Adapter with Interposer				
	AC1	A4X6	Initial	Yes
	MC1		Initial	Yes
Intel X520 Dual Port 10GbE SFP+ Embedded Adapter with Interposer				
	AC1	A4X7	Initial	Yes
	MC1		Initial	Yes
Broadcom Dual Port 10GbE SFP+ Embedded Adapter with Interposer				
	AC1	A4XG	Initial	Yes
	MC1		Initial	Yes
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x				
	AC1	A4YQ	Initial	Yes
	MC1		Initial	Yes
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x				
	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes
ServeRAID F5115-200GB SAS/SATA Controller for IBM System x				
	AC1	A4Z7	Initial	Yes
	MC1		Initial	Yes
ServeRAID F5115-800GB SAS/SATA Controller for IBM System x				
	AC1	A4Z8	Initial	Yes
	MC1		Initial	Yes
2x2 HDD BRACKET				
	AC1	A50F	Initial	Yes
	MC1		Initial	Yes
Essential Package				
	AC1	A524	Initial	Yes
	MC1		Initial	Yes
Enhanced Package				
	AC1	A525	Initial	Yes
	MC1		Initial	Yes
Elite Package				
	AC1	A526	Initial	Yes
	MC1		Initial	Yes
Essential Package				
	AC1	A527	Initial	Yes
	MC1		Initial	Yes
Enhanced Package				
	AC1	A528	Initial	Yes
	MC1		Initial	Yes
Elite Package				
	AC1	A529	Initial	Yes
	MC1		Initial	Yes

The Single Entity Offerings (SEO)	SEO number
IBM System x3650 M4 BD	5466A2U
	5466A4U
	5466B2U
	5466C2U
	5466C4U
	5466D2U
	5466F2U
	5466F4U
	5466G2U

Option SEOs:

SEO number	Description

00AL182 1U Riser Card, One PCIe x16 slot
00FK886 Rear Backplane, 2x3.5" HDD Extension
To Front Array (14HDD Array)
00AL184 Rear Backplane, 2x3.5" HDD Separate Array
00AL181 1U Riser Card, Two PCIe x8 Slots
00AL183 1U Riser Card, One PCIe x8 slot
(For Slotless RAID only)
00AL185 Broadcom Dual Port 10GbE SFP+ Embedded
Adapter with Interposer
00AL652 Broadcom Single Port 10GbE SFP+ Embedded
Adapter with Interposer
00AL653 Intel X520 Dual Port 10GbE SFP+ Embedded
Adapter with Interposer
00AL742 IBM System x 750W High Efficiency Platinum
AC Power Supply
00AL743 IBM System x 900W High Efficiency Platinum
AC Power Supply
00AL147 Intel Xeon Processor E5-2695 v2 12C 2.4GHz
30MB Cache 1866MHz 115W
00AL148 Intel Xeon Processor E5-2670 v2 10C 2.5GHz
25MB Cache 1866MHz 115W
00AL149 Intel Xeon Processor E5-2680 v2 10C 2.8GHz
25MB Cache 1866MHz 115W
00AL138 Intel Xeon Processor E5-2603 v2 4C 1.8GHz
10MB Cache 1333MHz 80W
00AL139 Intel Xeon Processor E5-2609 v2 4C 2.5GHz
10MB Cache 1333MHz 80W
00AL140 Intel Xeon Processor E5-2620 v2 6C 2.1GHz
15MB Cache 1600MHz 80W
00AL141 Intel Xeon Processor E5-2630 v2 6C 2.6GHz
15MB Cache 1600MHz 80W
00AL142 Intel Xeon Processor E5-2630L v2 6C 2.4GHz
15MB Cache 1600MHz 60W
00AL143 Intel Xeon Processor E5-2640 v2 8C 2.0GHz
20MB Cache 1600MHz 95W
00AL144 Intel Xeon Processor E5-2660 v2 10C 2.2GHz
25MB Cache 1866MHz 95W
00AL145 Intel Xeon Processor E5-2650 v2 8C 2.6GHz
20MB Cache 1866MHz 95W
00AL146 Intel Xeon Processor E5-2650L v2 10C 1.7GHz
25MB Cache 1600MHz 70W

ServicePac for Warranty and Maintenance

Machine Type Model SEO	Service Description ServicePac	ServicePac SEO	MTM
5466	3 Year Onsite Repair 9x5 4 Hour Response	00GW144	67568B3
5466	3 Year Onsite Repair 24x7 4 Hour Response	00GW145	67568B4
5466	3 Year Onsite Repair 24x7 2 Hour Response	00GW146	67568B5
5466	4 Year Onsite Repair 9x5 Next Business Day	00GW147	67568B6
5466	4 Year Onsite Repair 9x5 4 Hour Response	00GW148	67568B7
5466	4 Year Onsite Repair 24x7 4 Hour Response	00GW149	67568B8
5466	4 Year Onsite Repair 24x7 2 Hour Response	00GW150	67568B9
5466	5 Year Onsite Repair 9x5 Next Business Day	00GW151	67568BA
5466	5 Year Onsite Repair 9x5 4 Hour Response	00GW152	67568BB
5466	5 Year Onsite Repair 24x7 4 Hour Response	00GW153	67568BC
5466	5 Year Onsite Repair 24x7 2 Hour Response	00GW154	67568BD
5466	3 Year Onsite Repair 24x7 4 Hour Response with HDDR	00GW155	67568BF
5466	4 Year Onsite Repair 24x7 4 Hour Response with HDDR	00GW156	67568BG
5466	4 Year Onsite Repair 9x5 Next Business Day Response with HDDR	00GW157	67568BH
5466	5 Year Onsite Repair 24x7 4 Hour Response with HDDR	00GW158	67568BJ
5466	5 Year Onsite Repair 9x5 Next Business Day Response with HDDR	00GW159	67568BK

ServicePac for Maintenance Agreement

Machine Type Model SEO	Service Description ServicePac	ServicePac SEO	MTM
5466	1 Year Onsite Repair 9x5 Next Business Day	00GW160	6756FBW
5466	1 Year Onsite Repair 9x5 4 Hour Response	00GW161	6756FBX
5466	1 Year Onsite Repair 24x7 4 Hour Response	00GW162	6756FBY
5466	1 Year Onsite Repair 24x7 2 Hour Response	00GW163	6756FBZ
5466	2 Year Onsite Repair 9x5 Next Business Day	00GW164	6756FC0
5466	2 Year Onsite Repair 9x5 4 Hour Response	00GW165	6756FC1
5466	2 Year Onsite Repair 24x7 4 Hour Response	00GW166	6756FC2
5466	2 Year Onsite Repair 24x7 2 Hour Response	00GW167	6756FC3
5466	1 Year Onsite Repair 24x7 4 Hour Response with HDDR	00GW168	6756FC4
5466	2 Year Onsite Repair 24x7 4 Hour Response with HDDR	00GW169	6756FC5
5466	1 Year Onsite Repair 9x5 Next Business Day Response with HDDR	00GW170	6756FC6
5466	2 Year Onsite Repair 9x5 Next Business Day with HDDR	00GW171	6756FC7

ServicePac for Essential Support

Warranty and Maintenance Option plus Remote Technical Support

Machine Type Model SEO	Service Description ServicePac	ServicePac SEO	MTM
5466	3 Year Essential Support 24x7 4 Hour Response	00GW172	

Maintenance plus Remote Technical Support

Machine Type Model SEO	Service Description ServicePac	ServicePac SEO	MTM
5466	1 Year Essential Support 24x7 4 Hour Response	00GW173	N/A
5466	1 Year Essential Support 9x5 Next Business Day Response	00GW174	N/A

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